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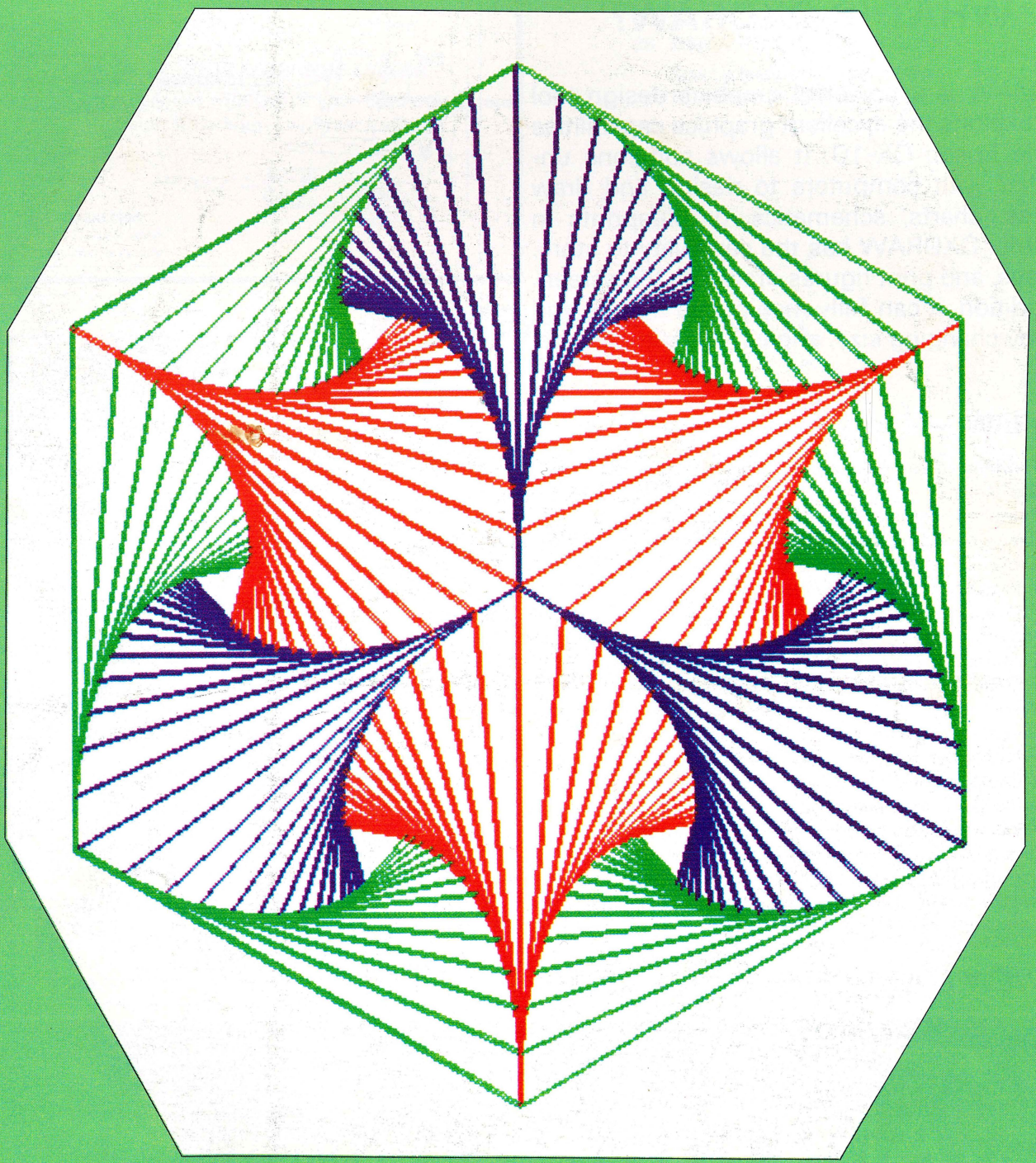
AUGUST 1984



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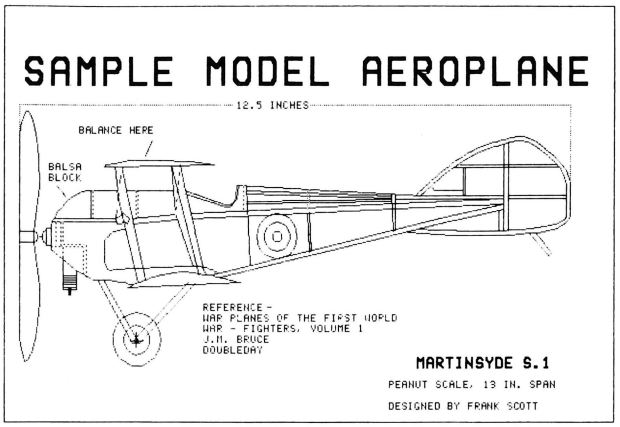

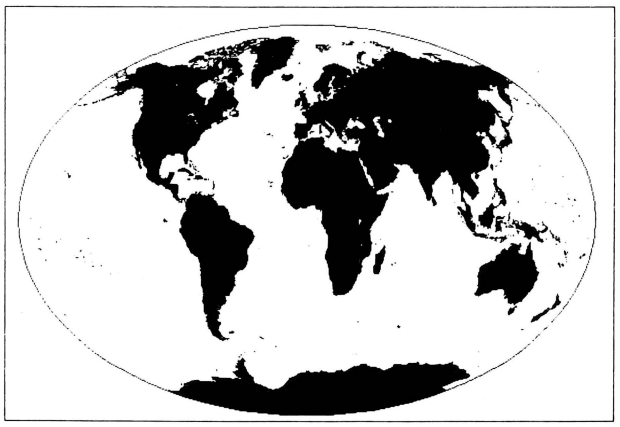

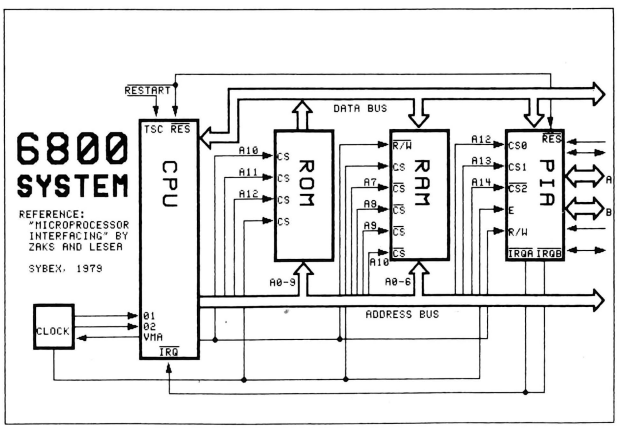

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PUBLISHERS
Carolyn McCarthy
Maureen Mertz

EDITOR
Carolyn McCarthy

ASSISTANT TO THE EDITOR
Christopher Wills

ADVERTISING/PRODUCTION
Maureen Mertz

CIRCULATION MANAGER
William V.J. Andrade

EDITORIAL CONSULTANTS
Ron Spatafora
Ralph Ruh
Bob Herman

CONTRIBUTING AUTHORS
Judy Lewis
George Puckett
Ron Lippitt

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From Your Editor...

Software Directory — We will be providing a software directory yearly as our December issue. It will have a complete updated list of products for all the Epson computer products as well as an INDEX of articles in the EpsonConnection since its first issue. This will be an annual seasons greeting gift from us, and will replace the regular monthly issue. We will have updates to the list included periodically throughout the year.

Correction : In the May/June issue there may have been some confusion created in the article about ZPIP and the Disk of the Month regarding the status of TPM utilities. These are indeed not public domain programs, they are copyrighted by Computer Design Labs which is owned by Rising Star Industries. The TPM Utility programs are provided on a disk when one purchases the TPM II Users Guide from R.S.I.

There have been an abundance of rumors floating around the country that Epson America is going to discontinue the QX-10, and that Valdocs 2.0 will never be seen. Suggestions have been made to sell your computer for some other brand while you can. This is an intriguing scare tactic possibly started by one of the companies that has been fortunate enough to preview Valdocs 2. There is no truth to this rumor. Epson America has prepared the following offical statement:

"In response to speculation about the possible discontinuation of the QX-10 may I say that we would be crazy to turn our backs on one of the best CP/M machines on the market. Epson is an innovator and yes we always have new technology on the drawing boards. However, we are committed to supporting the QX-10 for many many years. The QX-10 is here to stay."

It is indeed tiring to keep getting "promises" to just wait another few weeks... and another few weeks..... and another month.... it's in beta testing now..... it goes to beta testing next week..... will be ready by June... July... August... the fall.... The QX-10 is a versatile and fine computer. Most of us bought it because of Valdocs and the EASE OF USE. Many of us have used our computers constantly through all this waiting period, and have been pleased with our accomplishments. Perhaps the hardest things to deal with are the wait, the lack of information, and rumors. My definiton of a rumor is a statement by someone about their thoughts or perceptions of something they thought they heard or saw. A rumor generally has less than .1% accuracy in having anything to do with the topic it is related to. An example, at one of our local user group meetings I demonstrated CP/M 2.2 release B. It had just been released, and we discussed and demonstrated some of the neat features. The following week I received concerned calls from the distributor and dealers asking why I had shown Valdocs 2.0 at the meeting. The only item in common with the rumor and event was that I had demonstrated a Version 2. piece of software. Rumors can be unintentionally harmful. Let's be more careful.

On to more exciting things. Rising Star did demonstrate Valdraw and Valpaint in their booth at the NCC show in July. They showed 2.0 Valdocs by invitation in their suite. The invitations were stapled to disks with Valdocs labels (they were blank by the way). The new version is absolutely fantastic, fast, has an incredible spreadsheet that interfaces with graphs to your hearts content. Valdraw and Valpaint are described further in the Whats New:Newsnotes section of this issue. There are over 450 features in Valdocs 2.0. Worth waiting for? Indeed. Where else can we get such an innovative computer from a major company working with a creative group of individuals. When you ask? This fall and coming soon. What about color? Some users have already expressed concern that since Valdocs 2.0 works in color, when will they be able to upgrade their machines. There has been no official answer out of Epson America on when color will be available, nor for how much. The current board and monitor are expensive and unavailable. I believe Epson America is trying to find a way to cut this cost down. Lets hope that one of the third party companies or Epson will get it out this quarter, and for a reasonable price. It does seem a shame to have such tremendous capabilities without being able to take advantage of them.

Rising Star Industries Support — Dennis Dreyer is the new support person manning their phone at 213-373-3154.

▲ ▲ ▲

WHAT'S NEW?

Geneva PX-8

Epson America introduced the Geneva PX-8 portable computer at the NCC computer show in Las Vegas in July. The PX-8 is a four-pound portable with three microprocessors. The system is based on a Z-80 cpu, like the QX-10, has a slave 6301, and 7508 processors. The Z-80 is operating at a speed of 2.45 MHz. The unit comes with 64KB RAM, 32KB ROM operating system, and 6KB Video RAM. The machine comes with 6 plug-in ROM capsules: a version of CP/M 2.2, an expanded version of Basic, three diskless software packages from MicroPro and a ROM capsule with various CP/M utility programs.

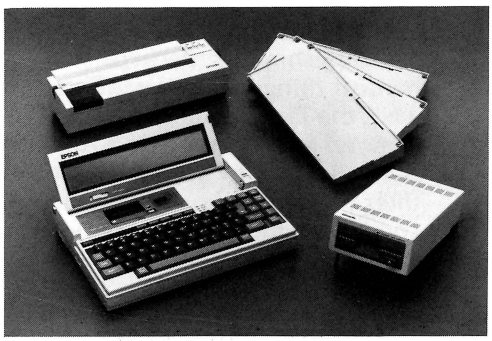
The ROM software is on chips which plug-in the bottom of the computer. The CP/M operating system is more or less permanent in it's own slot, though it may be removed if other operating systems are installed on capsule in the future.

Portable Calc is a spreadsheet which can have 64 columns by 256 rows. The Scheduler functions as an appointment book and traveling alarm. The Wordstar version is just like the full version for the QX-10 with a few of the more complex commands missing.

The display is an 8 line by 80 character, high resolution (480 by 64 dot matrix) LCD screen. The unit has a built in microcasette drive, a serial RS232 port, a high speed serial port, a dynamic speaker, an analog-to-digital converter,and speaker output. The machine also has a built in clock/calendar function. There is a convenient slide out handle, a cover which goes over the keyboard, and a screen that folds out for easy viewing.

The peripherals scheduled for release are: 3½ inch battery powered disk drive with 320 KB and a transfer rate of 38.4Kbits/sec., a "Multi-Unit" (a nice option) which is a 64K RAM expansion memory unit with a 300 Baud direct-connect modem. There are expansion memory RAM disk units of 60K and 120K RAM. scheduled for release in September is a portable, battery-powered thermal transfer, 9 pin, 80 column printer. The portable printer has 3 pica and 3 elite type styles printable from 40 to 160 characters per line, a bit-image mode of 8x480 dots/line and a serial RS232C port.

The pricing is expected to be set at: PX-8 $995., 3½ in. floppy disk drive $599., thermal printer $275., multi-unit $360., 60K RAM expansion unit $329., and the



120K RAM expansion unit $460.

User Tips - When you first get your unit, the ROM chips will be snug in the sockets. AVOID prying the chips out from one end only, gently raise them on one end, then the other, in turn until the unit is removed. After several removals it will become easier to remove and insert the ROM's by hand.

The ROM capsules are called drives B and C. It does not matter which one you place in which socket. ROM slot 1 is drive B, and ROM slot 2 is drive C. Some future planned software will have 2 ROM chips per program. Turn the power off when inserting and removing chips. They may or may not be damaged with the power on, but it is best to be safe.

When you have stored a program to the cassette, use Shift PF1 before removing the tape. This will give the command to remove the tape and update the tape directory. A directory is saved at the beginning of the tapes for your convenience, and updated in this fashion with each new addition.

Handling the ROMS. The ROMS are chips housed in nice plastic cases. It is best not to touch the pins of these CMOS ROMS. Static electricity can create problems, and the oil from your fingers can also cause poor electrical contact. Why take achance when careful handling is an easy precaution?

Special Features Password protection is available for your machine, which will prevent other people from using it. The alarm function can remind you of meetings, wake you up, and can even turn on the computer, execute a string, and run a program at a preset time. Does this mean it will do your work while you sleep or go out to lunch? Sure can.

Overcharge? You cannot overcharge this unit. It looks at the power switch to see if it is on or off. If the computer is ON, the clock will go into an 11 hour countdown for charging, if it is OFF, the charge timer will set for 8 hours. When the full charge rate is achieved, the computer times itself out and goes into a trickle charge mode until the battery goes down to 5 V, then recharges all over again.

A public domain program has been written which will be available on the RBBS boards called battery.com. This program will visually show the amount of charge remaining on the battery. We mentioned there is a real dynamic speaker built in, and not a piezoelectric one.

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of Manufacturer

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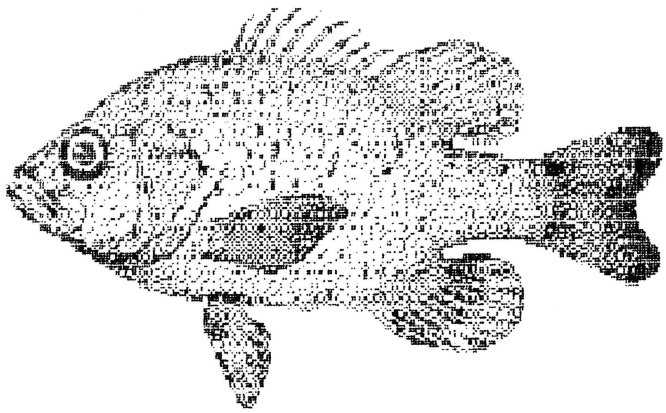
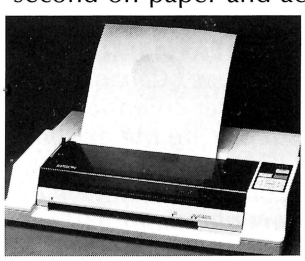
More Epson Products Introduced

Epson has developed an interface for the Apple Macintosh computer to work with the FX-80 printer. The printer driver program from SoftStyle, Inc. allows MacWrite and MacPaint to print out on the FX. The program runs $29.95, and requires a connecting cord and serial interface card for the FX-80. The fish pictured here was printed out on the FX using this.

Hanzon Data Inc (18732 142nd Ave NE, Woodinville WA 98072), has introduced a plug in board for your Epson RX and FX printers that allows the printers to look like the Apple Image Writer to all Apple computers and software. It will actually handle all the software developed for the Apple IIc, unlike the Image Writer. The interface operates in two modes. The Epson mode is transparent to the computer and passes the data without any modification. In Apple mode, the board check all incoming data for control codes usedfor the image writer brand printers and converts it to equivalent code for Epson printers. This unit will be carried by Epson dealers. Suggested list $129.50.



A first for Epson, is the introduction of a four-pen color plotter. It features 42 intelligent commands to reduce the programming time required for common tasks. There are 10 colored pens available, and it will produce at a speed of 9 inches per second on paper and acetate.



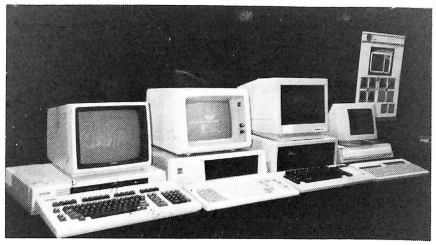
The plotter was demonstrated working with the Qplotter program, and is priced at $599. This plotter is scheduled for release in September, and uses a parallel interface. We will be doing a review of this product in the near future.

New Comrex Printer

Comrex has introduced a new high-speed dot matrix printer called the ComRiter 420. The draftprint speed is 420 CPS and 104CPS in correspondence mode. It is scheduled for release this fall and will cost under $2500. It includes an 18K buffer, built-in control panel for choosing type styles and form length. There are also switch selectable international language fonts, and it has both serial and parallel interfaces.

Networking

Sunol Systems demonstrated a universal networking mass storage system working with the QX-10 and various other computers. The Winchester hard disks range from 8 MB to 92MB, and have a random access tape backup of 23MB. A typical SunNet system for 4 QX-10's with a 25 MB hard disk with the tape backup is



under $6000, which includes the interface boards, multiplexor, cables, hard disk and excluding the QX-10's.

Rising Star Industries, Inc.

Rising Star hosted a show stopping booth. They demonstrated RSI Basic, Valdraw and Valpaint on NEC color monitors with the QX-10. They were also using a large projection screen to demonstrate the Draw and Paint features, which are

spectacular. Following is a list of some of the features of these two modules as demonstrated at the show:

VALDRAW: Mouse or keyboard interface, a database technique keeps a drawing file, there are libraries of shapes, an optional drawing grid overlay, one-stroke creation of geometric figures, easy text entry, autoscaling of text, 32 levels of zoom, the ability to merge drawings, a "gravity" function, full color support on screen and to plotter and printer, use of the STORE, INDEX, RETRIEVE keys, the ability to copy delete and store blocks, and drawings may be passed to VALPAINT.

VALPAINT: Mouse interface, the ability to paint VALDRAW pictures, freehand pencil drawings, an eraser function, airbrush and paintbrush

Con't on page 31

Q I am using a U.S. Robotics modem which is Hayes compatible. I am unable to use it with the Valdocs Mail program. The program refuses to accept that there is a modem connected. Is there anyone who can help me? This information will not only be helpful for me, but also to others who have bought this modem.
A *The QX-10 works with any modem that uses the standard RS232C interface to connect to a computing device. If you want to know which modems are compatible with Valdocs software, you can find out by running SETUP.SYS under the Menu key. Listed are the Hayes Smartmodem, and the Comrex CR-103. The Promethius, Ventel, and Multitech modems also work well, emulating the Hayes while in Valdocs.*

Q What exactly are the functions of the eight (dip) switches on the back of the QX-10?
A *The functions of the switches are determined by the software being used. For Valdocs version 1.18, only switches one, two, and eight are used. Switch two enables the Zapple monitor on boot, and switch eight is used for downloading graphics characters to an FX-series printer.*

Q What are the communications parameters for Valdocs Mail?
A *Eight bit word, no parity 300 or 1200 baud rate (depending on Hayes). One stop bit.*

Q Will Valdocs automate page counting, ie. 1 of 10, 2 of 10 etc. C. Matthews, Denman Island, BC
A *C. Matthews, Currently you can not automatically format pages in the manner you describe. The only way you can accomplish this would be to type the page numbering (1 of 10) yourself. You might also entertain the prospect of purchasing, or having printed, paper to your specifications. You would then have to set the top of page margin in Valdocs to start printing the document a few lines below your numbering.*

Q Can anyone tell me exactly how I can get a Radio Shack TRS 80 Model-100 portable computer to upload programs to my Epson QX-10? I have tried calling from another phone to my computer via my Hayes 300 with the QX and the built in modem on the model 100. I have had no success doing this using the Valdocs Mail program. Wm Castleton, Irving, TX
A *William, you have to have a compatible modem program that supports Christensen protocol to transfer files between them.*

Q How can I increase the 64k RAM of microplan to accomodate a field area of 57 rows and 14 columns, condensed print (128 chr.)? My salesman believes my only choice would be an MS-DOS board and an IBM version of MicroPlan. This sounds very un-Epson like to me. Diven Meredith, Palm Desert, CA
A *Unfortunately that is right, it would otherwise require modifying the copyrighted MicroPlan program, which can't be done legally.*

Q Requarding the Comrex CR-103 internal modem board. In using the CR-103 I tried to dial a number; however, each time the QX tried to dial the pulse dial "clicks" started to run on constantly. It would not dial, what seems to be the problem?
A *Under the pulse set up in the WHO AM I MENU, the modem can not handle a phone number with a zero in it. The problem is solved by switching to the tone dialing* option in the WHO AM I MENU (even though you have pulse service on your phone).

Q In your March/April edition there was an article on RSIBASIC for the QX-10. I enjoyed the article and plan to buy RSIBASIC. In the first paragraph Clyde Lyndsey talked about a color QX-10. I was not aware that there was a color QX-10 available and neither was my dealer. So I am asking you; is there such an animal or was Clyde just being sarcastic? If there is, can I convert my QX-10 to color? If so, how? I had heard rumors of a color monitor for the QX-10 from my dealer but nothing more than that. Please clarify this for me as I would love to have a color monitor..... Sincerely, Kent Loose / Miamisburg, OH
A *Kent, there is color for the QX-10 in Europe, Canada, Japan, and some other countries. It involves replacing the existing internal video display board with one for color, and a new high resolution color monitor. The cost is high, and availability scarce. No specific plans have been announced by Epson America yet for release in this country. Since Valdocs 2.0 is proported to work fantastically with color I would expect some availability in the near future.*
Carolyn,

QXSM-1

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- **ST-2 Analog Module** with 32 A/D inputs, 32 relay outputs, 2-8 bit . . . .$795.00 counters, many options including D/A
- **HX-20 TECHNICAL MANUAL** over 360 pgs with schematics $40.00
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QX-10

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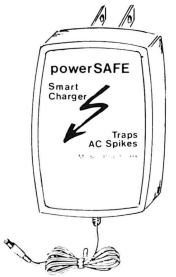

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Top quality, individually tested 36 pin Centronics-type standard parallel cables for the Epson QX-10. Made to work hard and long.

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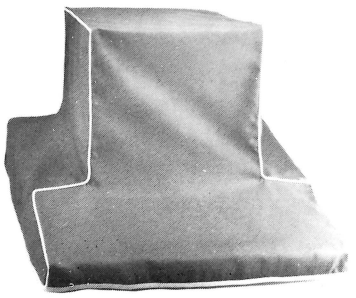
Photo: Form-fitting cover over CPU, monitor, and keyboard.



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Matching sailcloth printer covers for all Epson printers and ComRiters are $14.95 each.

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- Attractive colors
- Professional appeal

Richly tailored inside and out. Look inside any of our Quality Covers; see the ultimate finishing; we use machines that sew with 3 needles so that edges will not unravel or shed lint. We stress perfection because you deserve the best. Compare for long-lasting satisfaction.

FACTORY DIRECT

Epson owners are talking about ...

"Just about every conceivable question that a reader might have will be found [answered] somewhere in this book."
The Epson Connection
March/April 1984

The Epson QX-10 User's Guide published by Scott, Foresman and Company, March 1984, is hot off the press, and is causing quite a stir among Epson owners. It's no wonder too. The author, James M. Hansen, is an independent consultant and professional hardware and software engineer, and is uniquely qualified to thoroughly explore and explain the architecture, capabilities, and uses of the QX-10. This lavishly illustrated book has 80 photos and takes you on a grand tour of your Epson's unique internal and external features. The author explains how the Valdocs operating system, and the CP/M and TP/M II operating systems work. In addition, Hansen discusses how run basic programs, create business graphics, use Peachtree Software, and much more.

The 159 fact-filled pages of *The Epson QX-10 User's Guide* are jam packed with complete, accurate information and technical advice that makes this book an invaluable tool. Hard facts explored here include advice on the selection of printers, modems, speech synthesizers, and unique expansion cards that enhance the Epson's built-in capabilities. If you want to learn more about your QX-10 and how to get real computing power from it, put this book on your desk. It pulls no punches. Our price for this extraordinary book is only **$17.95**. Order today to get this book fast.

Stop Tearing Up Your Disk Drives!

The Epson can dump a file faster than a printer can accept it. So, it's great to have a device that will catch the file, quiet the disk drives, and give the computer back to you.

If you're using your Epson as a printer buffer instead of a computer, you may be tearing up your disk drives. Disk drives are mechanical devices, they are often the first parts of a computer to go sour. No wonder. Everytime you feed your printer a file, the drives whirl madly until the printer has accepted the entire file. Sometimes this takes a long, long time.

If you're tired of hearing your disk drives grind down, you need a printer buffer. The best performance and price buffer on the market is the Consolink MicroSpooler. This computer-like tool absorbs files as fast as your computer can send them, and then patiently feeds or spools them to your printer a few bytes at a time.

CONSOLINK MICROSPOOLERS

Description	List	Price
64 K P-P	$359.00	$289.95
64 K P-S	$389.00	$294.00
64 K S-S	$390.00	$295.00
64 K S-P	$384.00	$292.00
Cables	$ 54.00	$ 29.00

64 K	Stores and spools files as large as 64 K.
P-P	Parallel Epson port to parallel printer port.
P-S	Parallel Epson port to serial printer port.
S-S	Serial Epson port to serial printer port.
S-P	Serial Epson port to parallel printer port.
Cables	Set includes one special male to female connector and one male to male connector. — Please tell us model and type of printer you're connecting to your computer.

Includes these unique features:

- Status digital readout
- Multiple copy function
- Temporary pause function
- Sleek internal power supply
- Comprehensive self test routine
- Slimline attractive casing
- Front panel reset
- 12 month factory guarantee

The MicroSpooler is an intelligent, feature-packed buffer. It is easy to install and operate. Merely place it between your computer and printer, then connect it with two cables, and feed files as large as 64K within seconds to your letter quality or dot matrix printer. The instant the transfer is complete, you can operate your computer again. The MicroSpooler does the rest.

The MicroSpooler comes in a variety of configurations. You can link your Epson to any popular printer with two inexpensive cables. Please check our low MicroSpooler prices. You won't find a more feature-packed or reasonably priced spooler around. Try the MicroSpooler of your choice for 15 days. If you are not completely satisfied with your purchase, return it for an immediate full refund. Your Micro Decision deserves this attractive and useful accessory. Order a compact and powerful MicroSpooler today.

Lockable Diskette Defender

Handsome, sturdy, smoke-tinted acrylic tray holds 70 Epson-size diskettes. Flip-up lid keeps out dust, debris, and moisture, and locks securely to guard your important work. Comes with 7 dividers with index tabs for easy filing and to keep floppies upright to prevent bending, warping, and scratching. Tough and secure metal lock never comes in contact with diskettes because it is enclosed in a special plastic housing. Super value at $23.95 for one, or $22.95 each if you buy 2 or more. Keep prying eyes and sticky fingers away from your data. Order today.

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SmartKey II™, A Computer User's Secret Weapon

Tens of thousands of computer users have discovered a secret weapon that attacks and eliminates boring, repetitious routines and, at the same time, speeds up and improves accuracy in computing. Now, if you use CP/M programs on your Epson, you can use this secret weapon too.

SmartKey II, the software program that Peter McWilliams and others rave about in their popular computer books, lets you redefine your keys at any time, even while your other software — such as Peachtext, Wordstar, dBase II, etc., is in operation.

Imagine writing your friend Rumpelstiltskin a letter? Since you don't want to upset the little guy by misspelling his name, choose any key on your Epson to be temporarily redefined to spell out "Rumpelstiltskin" every time you touch it. Spell it right one time and it pops into your letter each time you press your "Rumpelstiltskin" key. SmartKey II makes it possible.

SmartKey II's amazing features include: allowing you to assign up to 3,750 characters to a single key; letting you define over 300 special function "smart keys;" and providing an exclusive supershift feature that lets every key have up to four meanings. When you use SmartKey II, you'll find once you've redefined your mundane keys into "smart keys," you can store your definitions in a special file, put them to work anytime you want, and make new definitions or change them at will. Imagine saving complex command codes, boilerplate paragraphs, sentences, nouns, inventory numbers, or whatever, and then recalling each of them with the stroke of a single unique key. That's right, call up your specially designed "smart keys" whenever and wherever you want, and inject them into your work. This "secret weapon" is a must-have software program for all Epson QX-10 users including writers, lawyers, doctors, accountants, researchers, secretaries, programmers, and businessmen.

No matter what you do with your Epson's CP/M operating system, SmartKey II is a time-saving "secret weapon" you can't afford to be without. Anyone can break into fast computing today by reducing often used multiple keystrokes to single keys. SmartKey II can even make your Epson's special HASCI keys come alive and be productive in CP/M programs.

Now, for a limited time only, Central Computer Products will give you a free copy of SmartPrint II, a $49.95 value, with your purchase of SmartKey II. SmartKey II comes with a complete, easy-to-use manual and is only $89. To get this super package fast, order today. Don't delay. If you use your Epson frequently, SmartKey can save you many thousands of tedious keystrokes. Imagine the time and money you'll save by using this excellent program. Order today.

QX-10 CP/M Software

Ashton Tate dBase II	**Fox & Geller** QuickScreen QuickCode	**Oasis** The Word Plus
Blue Chip Millionaire	**Mark of Unicorn** The Final Word	**Pearlsoft** Personal Pearl
Condor Software Condor I Condor III	**MicroPro** Wordstar Reportstar Infostar Mailmerge	**Softcraft** Fancy Font
Continental Home Accountant		**Sorcim** SuperCalc SuperCalc II
Digital Marketing Milestone	**Microsoft** Multiplan	**Star Systems** Accounting Partner

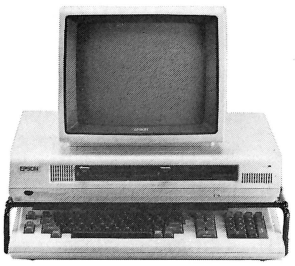
Do You Wish Writing Were Easier?

If you need to write, or want to write clearly, your Epson CP/M operating system and the software program *Punctuation and Style* can help you get there faster. It improves, clarifies, and enriches your writing by identifying sentences with misused, redundant, faulty, cliched, or erroneous phrases, and shows you how to improve them. It helps you rewrite and check your work by quickly marking and annotating your files for easy correction. In addition to computer-fast identification of awkward, muddy, pompous, and wordy sentence structure, it also finds missing or improper punctuation, unbalanced quotes, wrong abbreviations, faulty capitalizations, and much more. *Punctuation and Style* actually improves your writing by mercilessly pointing out grammatical errors. After a few weeks with Oasis System's *Punctuation and Style* your writing is bound to become more dynamic, expressive, and honest. In time, you'll stop worrying about grammar and work on projecting ideas instead. After all, that's what writing is about.

Punctuation and Style makes writing and rewriting much easier. Central's price for *Punctuation and Style* is $99. Experience the power of this valuable "Punctuation Checking and Writing Improvement Software" yourself. Order today to get this program fast.

Punctuation and Style works on files created with most popular CP/M word processors. It comes with an easy to use, clearly written manual and is packaged in an attractive binder. Join thousands who now write with more confidence, faster, and better.

Perfect Epson Stand



Simple, strong, sturdy, safe. These words describe an attractive stand that provides a perfect spot to place your Epson computer and monitor on. This stand is made from rounded, steel rods covered with a thick, shiny, soft, black polymer material that protects your Epson and table top from scratches. Unlike flat wood or acrylic panels used in other stands, the tough supporting rods of the Smart Stand (TM) do not obstruct air flow. In fact, since your Epson is lifted off the table top and fully supported by this stand, air flows freely all around your computer to help keep it cool. When you're finished computing, you can slide the keyboard completely under the stand to create a working area on your desk. Incidentally, lifting your QX-10 off the table top makes it much easier to insert and remove diskettes out of the disk drives. The Epson Smart Stand is a super value at $34.95. Try it for 15 days. If not completely satisfied, send it back for a full refund. Matching 80 or 130 column printer stands are only $26.95. Order today.

Copy 32 Disk Formats

Until now, when you wanted to trade data disks or programs with your friends you couldn't do it without going through considerable trouble and expense. With *Uniform* you can easily read and write many other machine formats. For example, now you can send a Kaypro-using friend your latest manuscript for editing or review; or send a Televideo-owning business partner new financial projections on a disk he can read and write to. There are literally thousands of uses for *Uniform*. With *Uniform* you can use the disk drives on your QX-10 to read and write 31 other CP/M formats. You can also copy the non-CP/M, MS-DOS and PC-DOS IBM formats. You might expect a software program like this to sell for hundreds of dollars, since writers, publishers, teachers, administrators, doctors, lawyers, and others, all need to trade data at one time or another. MicroSolutions, the manufacturer of *Uniform* recently raised the price of this program. Considering its many practical applications, it's a rare value at $69.95. This version works with both CP/M and CP/M B. Order *Uniform* today. Satisfaction Guaranteed.

Lifetime Guarantee!

3M Double-Sided Double Density soft-sectored diskettes are certified error-free, and work like a charm on Epson QX-10s. Every 3M diskette is guaranteed to last over 3.5 million passes per track. This means if you rewrote or updated every track on a 3M diskette once per hour, you would have to continue this process for more than 200 years to equal the 3.5 million pass level. Heavy duty reinforced hub ring also insures reliability of these diskettes. We guarantee lifetime performance of 3M disks or money-back.

Our 3M products are super value priced. For example, suggested list price of 3M DSDD diskettes is $60. Central's low price for a fresh, sealed box of ten 3M DSDD diskettes is $32. There is no better diskette made for your Epson. In addition, these 3M products are also excellent values: 3M head cleaning kits increase the life of your read-write heads; 3M anti-static mats protect Epson micros from damaging jolts of static discharge. For fast, fast delivery of these 3M products, order today.

3M DSDD diskettes for Epsons: **$32.00**
3M Head Cleaning Kits for Epsons: **$22.95**
3M DeskTop Anti-Static Mats: **$49.95**

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FIRM MONEY BACK GUARANTEE ORDER WITH CONFIDENCE Postage & Handling	$ 3.00
Total	$

☐ Navy blue ☐ Sand
☐ Send free catalog ☐ Send free SmartPrint II
☐ Check enclosed ☐ Money Order enclosed

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A Communications Program for the QX-10

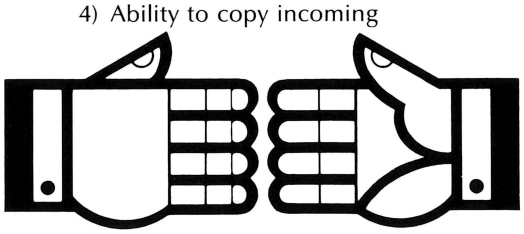
by Chris Hopkins

One of the most important rules in life is that every rule has an exception. Free software is a wonderful exception to the rule that "you get what you pay for." And while it is true that you must often exert some effort to separate the wheat from the chaff, there are many excellent programs to be had free of charge in the public domain. An especially good example is the family of modem programs known variously as MODEM7, MODEM798, MDM712, MDM730 or by other similar names. Many thousands of programming hours have been invested in improving this program since it was first written in 1977 by Ward Christensen, a Chicago area computerist. The importance of his innovations resulted in his name being given to the "Christensen Protocol" for transferring files from one computer to another. While the protocol and the original MODEM program have changed through the years, we owe Ward many thanks for his work. (If you'd like to do that sometime, leave him a message on CompuServe's CP/M SIG. Thanks are the only reward that public domain programmers receive).

Features

This article is to introduce you to an outstanding communications program in the public domain named QX-MODEM. This program is the popular MDM730 program modified for use with the Epson QX-10 and the D.C. Hayes Smartmodem, Smartmodem 1200, or other modem that uses the Hayes-type protocols. QX-MODEM is a sophisticated program that has all the advantages of MDM730. For those of you that have not used MDM730 before, some of its more important features include (see note #1):

1) Ability to talk with another computer using a keyboard at each end (Called the "terminal mode".)
2) Ability to operate a remote mainframe computer such as TYM-SHAR, or special data bank systems now commonplace. This includes bulletin board systems for receiving, sending or just reading messages or other types of information.
3) Ability to upload (send) or download (receive) programs from other computers whether TYM-SHAR, data banks, remote hobby systems or just another individual in another location, as long as the other computer supports the XMODEM or Christensen Protocol.
4) Ability to copy incoming

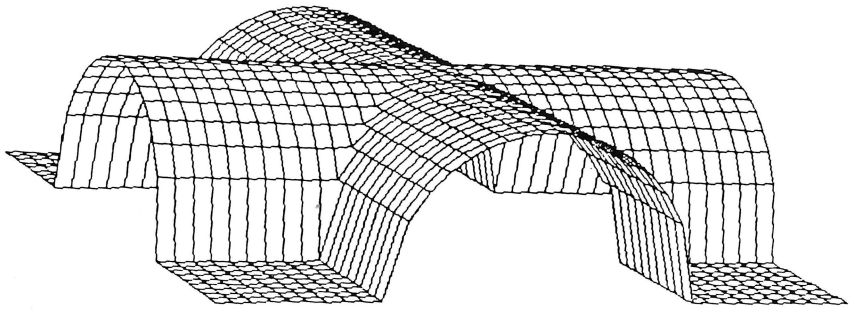


information on a printer. If the printer is too slow to copy the data directly, the extra characters are placed into a large storage buffer until they can be printed.
5) Ability to copy incoming data into memory for automatic transfer to a disk file.
6) Advanced type of error detection (CRC or Cyclic Redundancy Check) using automatically generated high-speed lookup tables. It also supports the checksum method.
7) Ability to send any of 11 different character strings using pre- programmed function keys. (Ten of these keys are easily reset using a special external program).
8) Automatic disconnect from the telephone line.
9) Automatic dialing and redialing of one or more numbers until the other computer finally answers.
   a) Automatic selection of a particular phone number from a library of names and numbers. (These phone numbers can be easily changed by using one of several special external programs).
   b) Automatic dialing for two different alternate long-distance systems, such as Sprint and MCI.
   c) Dialing of a hand-typed number. Although it might be as simple to manually dial the number as hand-type it, it can then be automatically redialed indefinitely.

Special QX-10 Features

In addition to including all the above features, QX-MODEM has additional machine specific features which make this program especially useful and smooth running on the QX-10. I developed these from the initial work done by Bruce Ratoff and released to the public domain as M712QS-1.ASM. I am indebted to Bruce for his understanding of the SYSINIT module of VALDOCS. Other overlays exist (such as M7EP-1.ASM and M7EP-2.ASM), but none was so well conceived as Bruce's. And while other MODEM type programs exist for the QX-10, I did not have access to their source codes. Starting from zero, I set out to imitate those features I most admired in such programs as ATXMODEM, RCDZMDM and MDM712A and added many features of my own design to produce QX-MODEM, one program which would consolidate all the good points. Here are some of the added capabilities:

1) It runs equally well as a VALDOCS application, as a TPM-II program, or as a CP/M A or CP/M B program. It checks for the presence of VALDOCS and uses its interrupt driven routines when necessary. It won't



"bomb" the clock, and timing problems have been solved.
2) Allows the use of QX-10 graphics in the terminal mode. This function can be toggled on or off.
3) Identifies the system it is running under as its title signs on.
4) Permits selection of even odd or no parity, 7 or 8 bit word lengths, and 1 or 2 stop bits.
5) Has a true "break" function for use with mainframes such as Dialog's Knowledge Index; it keeps the same parity/word length after the break.
6) Initializes the modem to the baud rate last used by the QX-10. If other than 300 or 1200 was used, the program prompts for the correct baud rate.
7) Has standard keystrokes for "break" (^B), and the character to send local control characters to the remote (^Z). Both will work consistently regardless of the keyboard or operating system of the QX-10.
8) Announces the system in use as the program terminates and exits from the BYE command to the system.

QX-MODEM consolidates all of these features in one program and, in addition, makes the complete program source code available. This means that, should you desire, you can modify the program to your heart's desire.

Availability

QX-MODEM is available for the price of a telephone call to most QX-10 bulletin boards. It is currently carried on the EpsonConnection Bulletin Board, listed as QXMDM3.TPM. (The TPM file extent indicates it is a .SYS file that has been renamed to prevent it from accidently being executed). It is also available from the EpsOnLine SIG of CompuServe. Note that on CompuServe, the object code file is named QXMDM3.BIN in conformity with their file naming procedure. The overlay file should be found with the name M7QX-3.ASM on all boards. All the supporting files should be available on your local RCPM/RBBS.

Supporting Programs

There are many public domain programs written in support of MDM730, and thus also for QX-MODEM. Here is a list of the QX-MODEM associated programs and what they do:

QXMDM3.SYS — This is the complete QX-MODEM communications program object code configured and ready to run on the QX-10 with no changes if you have a Hayes Smartmodem. It is the only program you need to run the QX-MODEM program; everything else is supplemental to this and needed only if you want to change the program or experiment. Rename it to QXMDM3.COM if it is to be run under CP/M.

MDM730.COM — This is the basic program upon which QX-MODEM is based. (That's basic with a little "b". The program is written in 8080 Assembler). MDM730 has been copyrighted by Irv Hoff and distributed for unlimited noncommercial use. But since it is distributed in a version configured for another computer and modem, it won't run on the QX-10 until modifications are made.

MDM730.DOC — This is the user's instruction guide for MDM730 type programs. Use it to understand and operate QX-MODEM.

MDM730.ASM — The assembly language source code file used to create MDM730.COM. Most users will never need this lengthy (158k) file.

M7QX-3.ASM — This is the assembly language source code file used to create the QX-MODEM overlay. It can be edited for your specific requirements and then transformed into a .HEX file using the ASM.COM program (which each QX-10 owner got with the machine). The .HEX file is subsequently "overlaid" on the MDM730.COM file to create QXMDM3.SYS. This is accomplished by using DDT.COM, another program included with your QX-10. The entire process is described in the introductory remarks of the M7QX-3.ASM file.

M7FNK.COM — This is a program used to quickly and easily alter 10 of the 11 function key assignments. You can read M7FNK.DOC for additional information. This program was written by Sigi Kluger.

M7LIB.COM - This is a program which easily changes the telephone numbers in the QX-MODEM phone library. It automatically finds the phone library, lists the library, and then guides you through the changes. See M7LIB.DOC for additional information.

M7NM-6.ASM — This ASCII file contains the assembly language source code to produce the overlay necessary for setting or altering numbers for SPRINT, MCI, etc. It is also the most convenient method to use when changing a large portion of the telephone numbers in the phone library. Instructions are contained as remarks in the file.

CHGLIB22.COM — Another program used to change MDM7xx type phone libraries. It is a menu driven program, with internal HELP files if required. Written by Dennis Recla, it has a documentation file available named CHGLIB20.DOC.

Hardware Requirements

In addition to your QX-10, only a modem and cable are needed to use QX-MODEM. The program is

specifically written for a D.C. Hayes Smartmodem or Smartmodem 1200, and Smartmodem specific character strings are sent to the modem during the course of the program. However, I have used QX-MODEM successfully with the Prometheus, and it should also work properly with other Smartmodem clones.

During modem initialization (software instructions to the modem at the beginning of the program), QX-MODEM resets switches 2 through 5 via the software. Therefore, the actual physical positions of those four switches are unimportant when using QX-MODEM. But the other switch positions are important. Here is the required Smartmodem switch arrangement:

SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
Up	Any	Any	Any	Any	Up	Any*	Dn

These settings are compatible with those required by VALDOCS MAIL to prevent unnecessary changing of settings.
*The position of SW7 depends on the type of telephone jack used, and is not set through software. See the modem instruction manual for further details.

The modem cable used for this program should be the standard Epson Cable #713. If that cable is not available, you should be using an RS232C cable which makes the following connections:

Smartmodem Pin#	QX-10 Pin#
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
20	20

Instructions for Use

The basic documentation for using QX-MODEM is in a file written by Irv Hoff named MDM730.DOC. There are, however, some significant differences of which you must be aware. When first brought up, the sign-on banner for QX-MODEM will look like this:

WELCOME TO QX-MODEM
[Using VALDOCS]
B» COMMAND:

The "using" statement will automatically advise which system is in use, so it may also say [Using CP/M] or [Using TPM]. If the last baud rate used before running QX-MODEM was not 300 or 1200 baud, another prompt will appear ahead of the
B» COMMAND: prompt which will request you to
Enter Baud Rate and/or Options:

After you enter 300 or 1200, the program will initialize the modem and then present the B» COMMAND: prompt. This step is required because the Smartmodem only understands commands issued to it at 300 or 1200 baud.

Another change from the MDM730.DOC description is the use of Control-B as the command used in terminal mode to cause a "break" to be transmitted, and the use of Control-Z in terminal mode to send a local control character to the remote computer. These characters (^B and ^Z) were selected because they are compatible with all QX-10 keyboards and operating systems. For example, CP/M A and B do not permit Control-@, and CP/M A does not permit Control-^. References to these characters will appear correctly in the help guide of the program as it runs on your machine.

While speaking of the help guide, page four of the help guide that you will see on your screen is completely different from the one described in MDM730.DOC. When it appears on your screen, it will look like this:

Additional SET Options for QX-10

Parity:
E - Even
O - Odd
N - None

Stop bits:
S - Single (1)
T - Two (2)

Data bits (word length):
A - ASCII mode (7 data bits)
B - Binary mode (8 data bits)
G - Graphics mode (8 data bits, no masking)

Examples:
SET 300ETA
SET B
SET NSG 1200

Substitute the following text for Discussion of the Help Guide, Special PMMI Page.

DISCUSSION OF THE HELP GUIDE, SPECIAL QX-10 PAGE:

When using QX-MODEM, the default settings are no parity, one stop bit and eight data bit word length with the seventh bit masked. This is the most common configuration and the one used for VALDOCS MAIL. However, the parity, stop bits, and word length can be reset through use of the SET command.

Simply type one or more parameters that are to be changed on the command line followed by a carriage return. A new command prompt will appear to indicate that the parameters have been accepted (or you'll get an error message). Note that the D.C. Hayes Smartmodem can only be addressed at 300 or 1200 baud. If you are having difficulty sending commands to the modem, use the SET 300 command to see if the baud rate of the QX-10 is not matched properly to the modem.

The Smartmodem 1200 can be used to connect with RCPM/RBBS computers having PMMI modems that support 110 through 710 baud. Since the Smartmodem can be "forced" up to 450 baud, you can achieve a 50% increase in transfer rate if the phone line is "clean". However, the

Smartmodem will not accept commands at 450 baud, so instruct the modem to call the RCPM/RBBS at 300 baud. After getting a CONNECT message, hit any key to enter terminal mode, type Control-E to get a command prompt, type SET 450 to set the baud rate for the QX-10, and after getting the next command prompt, type T to re-enter terminal mode. The next step is to type several carriage returns at a measured pace until the remote recognizes the 450 baud rate at which you are now operating. When finished with all communications at 450 baud, use SET again to return the QX-10 to a baud rate (300 or 1200) that the Smartmodem can understand.

QX-MODEM also allows the use of the QX-10's graphics character set while in the terminal mode with another QX-10. To enter the graphics mode, include a "G" in the SET command. For example:

B»COMMAND: SET 1200NSG
or simply
B»COMMAND: SET G

This enables graphics for both send and receive. For a sample of how this works, call one of the Classy QX-10 bulletin boards to see how they have used QX-10 graphics characters to create the sign-on message. The EpsonNet Boards added graphics to their new systems. To subsequently cancel the graphics, type SET B on the command line. Most mainframe systems (like CompuServe) will result in lots of garbage on your screen if you have QX-10 graphics enabled.

PATCHES

It may become necessary to make a change in your program that is simple and hardly worth the effort of editing an assembly language file, assembling it and then using DDT.COM to overlay your program. Often a software author will disseminate changes to a program in a form that protects the source code file if it has been not been published. These patches are a simple use of DDT.COM, and can be accomplished by a novice who simply follows the directions and doesn't have the slightest idea of how the process works!.

Here is an easy sample for you to try before jumping to the more complicated. This patch changes the QX-MODEM program from a touch-tone dialing system to a pulse dialing system.

```
A>DDT QXMDM3.SYS
  user types DDT QXMDM3.SYS<CR>
  (file to modify)

DDT VERS 2.2
NEXT PC
4A00 0100
-S105
  user types S105<CR> (S plus
  address of byte)

0105 54 50
  user types 50<CR> (50 is new byte
  to sub)

0106 28 .
  user types period<CR> (to end
  changes)

-G0
  user types G0<CR>

A>SAVE 73 QXMDM3.SYS
  user types
  SAVE 73 QXMDM3.SYS<CR>

  (you can use another name to keep
  original in case something goes
  wrong).
```

That's all there is to it. The SAVE command has created a new file on your disk that has been modified to pulse dial. If you SAVEd with the same name as you started, the original file was overwritten. If you SAVEd to a new name, a new file was created and the original still exists.

Some people have mentioned they are annoyed with the bell ringing constantly after a connect when auto-dialing with QX-MODEM. The following patches are two small changes which will stop that. They give you a choice in how your program will act when it connects, but only use one patch or the other, not both (see note #2):

1) ONLY RING ONE TIME, then will go into terminal mode after announcing it has connected:

```
A>DDT QXMDM3.SYS
DDT VERS 2.2
NEXT PC
4A00 0100
-S06EA
06EA CD C3
06EB 88 7E
 06EC 2B 19
06ED CA .
-G0
A>SAVE 73 QXMDM3.SYS
```

2) WILL NOT RING THE BELL AT ALL, but will go right to terminal mode after announcing it has connected.

```
A>DDT QXMDM3.SYS
DDT VERS 2.2
NEXT PC
4A00 0100
-S06E3
06E3 07 00
06E4 00 C3
06E5 06 73
06E6 05 19
06E7 CD
-G0
A>SAVE 73 QXMDM3.SYS
```

Irv Hoff, the copyright holder and most knowledgeable person on the MDM730 program, reports that there are two obscure bugs in the MDM730 program. The first involves the alternate long distance dialing system — occasionally the last digit of the billing code will be entered twice, messing up the correct dialing. The second involves a problem existing since the early MODEM7 days which has never been corrected. When copying to disk in the terminal mode, if the disk fills, the program says it is saving as much of the copy as it can. It then closes the file — only it was closing the file normally used for file transfers. The following patch corrects both problems. As they only recently came to his attention, it is obvious the typical user has never run into either problem.

MAKING THE CHANGES: Use DDT.COM or SID.COM in the following manner. The column on the right is what the operator enters, the column on the left is what is currently in the program. Where you see xx it makes no difference what is there now.

This is the change for DISK-FULL WHEN IN ASCII CAPTURE MODE. Irv

Hoff recommends that everyone have this one.

```
A>DDT QXMDM3.SYS
DDT VERS 2.2
NEXT PC
4A00 0100
-S0DC5
0DC5 xx CD
0DC6 xx 6C
0DC7 xx 47
0DC8 xx C3
0DC9 xx 26
0DCA xx 21
0DCB xx .
-S210D
210D 1E C5
210E 21 0D
210F EB .
-S214F
214F E7 6C
2150 27 47
2151 CD .
-G0
A>SAVE 73 QXMDM3.SYS
```

Following is the alternate long distance dialing change for 'SPRINT', 'MCI', etc., users. Check the bytes to see if they match OK; if not, do not attempt to use this change.

```
A>DDT QXMDM3.SYS
DDT VERS 2.2
NEXT PC
4A00 0100
-S0DC0
0DC0 xx CD
0DC1 xx 9D
0DC2 xx 2B
0DC3 xx E1
0DC4 xx C9
0DC5 xx .
-S0807
0807 1F 20
0808 08 .
-S0819
0819 CA C2
081A 99 03
081B 07 08
081C C3 E1
081D 03 C3
081E 08 99
081F 3E 07
0820 20 3E
0821 CD 20
0822 9D 47
0823 2B C3
0824 E1 C0
0825 C9 0D
0826 3A .
-G0
A>SAVE 73 QXMDM3.SYS
```

Conclusion

So there you have it. QX-MODEM is a QX-10 specific version of MDM730, the best supported, most mature communications terminal program available for the QX-10. It has numerous supporting programs to change its phone library, re-program its 11 user definable function keys, and the full source code is available to anyone interested in modifying or improving the program. As errors are found and new communications needs developed, MDM730 has been constantly improved.

One problem that has developed, however, is the uncontrolled changing and naming of the program. In an effort to stem the tide of a change approximately every two weeks, Irv Hoff took the somewhat controversial step of copyrighting the name MDM730. In effect, he took control of a nearly unmanageable problem, and is attempting to control the quality of the program. He has his critics, but he has also effected a reduced rate of change. This stability is good, especially for overlay versions that require several calls to addresses in the main program as does QX-MODEM. But it is not intended to prevent anyone from constructing his/her own version.

I recommend that you follow two rules. First if you make a change to the basic program, do not name it MDM7XX.COM without first coordinating the changes with Irv Hoff, a procedure that will help control the quality of the program for the many different types of computers for which it is written (Irv is quick to credit anyone for their contributions). You can, of course, name your program anything else you like. Secondly, I ask that you do not use the name QX-MODEM or QXMDM unless you insure that the program you release is fully compatible with VALDOCS, is a self-contained overlay which will work with MDM7XX, and enhances what has already been done. I have contributed my overlay to the public domain, and it is there for all to use and improve upon. Submit new versions of the overlay, M7QX-n.ASM, to the Technical RCPM/RBBS (313)846-6127 or the CompuServe CP/MIG with a message to the SYSOP. They, in turn, will make official release.
MDM7XX
or leave a message on Bruce Kinney's Rising Star Field Support Network bulletin board in Dayton, Ohio, (513)236-7178 (300/1200 Baud). I'm particularly interested in bugs that you find, solving QX-MODEM problems and your recommendations for improvement.

Notes:

1. Excerpted from MDM730.DOC by Irv Hoff
2. Excerpted from bulletin board message from Irv Hoff, 22 Mar 84
3. Excerpted from M730IRV1.FIX by Irv Hoff, 01 May 84

▲ ▲ ▲

Looking for a good, fast reliable modem that works w/ Valdocs 1.18?

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BASIC CORNER

by George Puckett

The Basics of BASIC

Welcome back! Let's dig a little deeper into the BASIC programming language (called MBASIC.COM on our QX-10's). Hopefully you have had a chance to experiment some with MBASIC since last month. If you have, Great! If not, you might find things more understandable if you review last month's issue and read the introductory article.

The first step is to run MBASIC.COM, commonly located on your CP/M diskette. You might also want to have a formatted disk in your right drive for storing your programs on. Type:
A> MBASIC <cr> and we're ready to begin.

This month, we will to start off by dicussing thePRINT statement. The PRINT Statement is BASIC's way of communicating with the outside world. Any information displayed on the screen, saved on a disk as a file, or printed on the printer; must make use of the PRINT statement. A PRINT statement is composed of several parts, some of which are optional:

(1) a line number
(2) the keyword 'PRINT'
(3) a message enclosed in double quotes
(4) a variable or equation which will result in a value to be printed

The example used last issue went like this:

```
20 PRINT 10 divided by 5 equals ;10/5
```

As you can see, We used all four parts mentioned above. Now let's expand on this information and see what else we can discover about the PRINT statement. First, of all, the order of parts 3 and 4, is up to you. For example:

```
20 PRINT 10/5; is the result of 10 divided by 5
```

is a perfectly legal statement. The output, of course, will be different — the answer coming first instead of at the end of the message as in the example before. You can also have several messages and several results printed on the same line, like this:

```
20 PRINT 10 / 5 = ;10/5; but 5 / 10 = ;5/10
```

Now, if you're following along here you might notice we are using the semicolon (;) a lot. The PRINT statement has two legal punctuation marks: the comma (,) and the semicolon (;). They each allow information to be printed in slightly different formats.

The **semicolon** tells BASIC to print the information as close together as possible. The **comma** tells BASIC to print the message or value following the comma starting in the next *print zone*; The screen is divided up into *print zones* 14 spaces wide. Let's look at the difference:

Using a semicolon:

```
20 PRINT 10 / 5 = ;10/5
10 / 5 = 2
```

Using a comma:

```
20 PRINT 10 / 5 = ,10/5
10 / 5 = 2
                    ^14th space over
```

As you can see, there is quite a difference between the two! The main use for the comma is to neatly space your output into columns. You can put two or more commas in a row and space over several print zones if you need to:

```
20 PRINT 10 / 5 = ,,10/5
10 / 5 = 2
                    ^28th space over
```

Our next tool is the **LET** statement. The preceeding examples all used equations to print out results. The real power of BASIC, however, is that you can use 'variables' instead of having to write out the equation every time. Think of a variable as the memory on an electronic calculator. You can place information into this memory and retrieve it by pressing certain keys. In BASIC, you place information into memory by using the LET statement. An example:

```
25 LET X = 32
```

This statement would create a memory location, name it 'X', and store 32 in that location. From then on, every time you referred to 'X' you'd get the value 32 instead.

```
25 LET X = 32
30 PRINT The value of X is now ;X
```

resulting in...

```
The value of X is now 32
```

Variable names are significant up to 40 characters so you can be very descriptive with your names. This will make it easier for you, and others to follow what you are doing in the program.

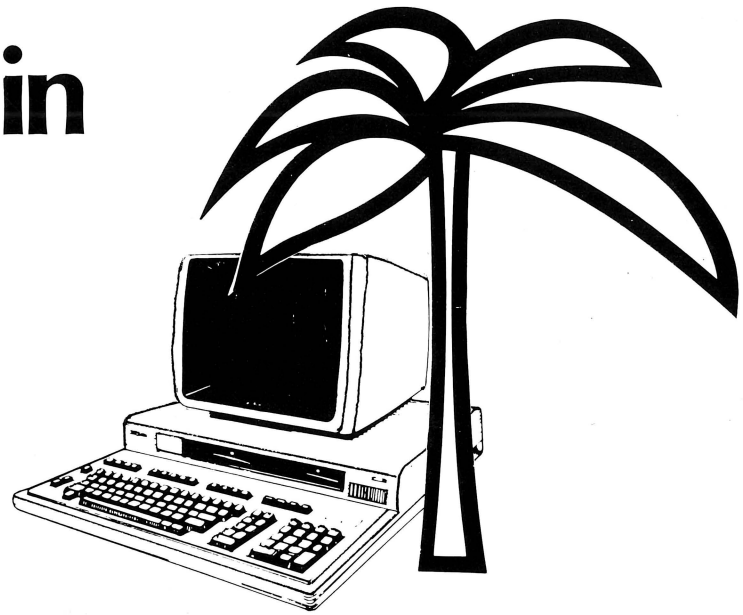
See if you can follow this example:

```
25 LET X = 32
30 LET Y = X ^z 2
40 LET RESULT = X / Y
50 PRINT X; divided by ;Y; equals ;RESULT
60 PRINT Y; divided by ;X; equals ;Y/X
70 END
```

Try to figure out what the results of this simple little program will be. Type it in on your QX and see what the results are, if you're not quite certain . Remember to type 'RUN' in order to start the program. If you'd like to save this or some other program you've written, type: SAVE "B:filename <cr>. You fill in the real name where it says 'filename.' Keep in mind the filename can only be up to 8 characters in length and, under MBASIC, must be in all capital letters! The .BAS extension will be added automatically so you do

Con't on page 31

Computing in Paradise



by Brian Farley

Brian Farley is a QX-10 owner who works in the office of the Governor in Yap State. The State of Yap, is a part of the Federated States of Micronesia, an emerging Pacific nation which is a United Nations Trusteeship, administered by America as the U.S. Trust Territory of the Pacific Islands. Yap State is 400 miles from Guam, 3,000 Miles from Hawaii, and 6,000 miles from the U. S. West Coast.

How, one might ask, did an Epson QX-10 system end up in Yap, "The Land of Stone Money" genesis of the book and film "His Majesty O'Keefe?" The answer is really not germain to this article. Suffice to say, many readers/users must think that hacking away on an Epson in view of an azure lagoon and swaying coconut palm trees is the best of all possible worlds. Certainly, it beats hacking away in Manhattan, Chicago, Los Angeles or any megalopolis under the miasma of the great economic machine. But before readers make their reservations and pack their bags, let me point out a few drawbacks.

Communications — Yap has access to COMSAT, thus, the world. Unfortunately, the system quality is not yet high enough for data transmission. Likewise, the rates are not low enough ($3 to $4 a minute) to be practical. So long, Compuserve.

Logistics — Splendid isolation has its drawbacks. Even Richard Nixon can attest to that. My Epson dealer (on Guam... You never heard of Guam?) is about 400 miles away as the 747 flies (and it only flies three times a week). Epson America and Rising Star Industries are 6,000 miles away. Mail turnaround time to the mainland is two weeks. To Guam it is three or four days, but can be a week due to flight schedules. So I can generally tell how long a letter has been sitting on someone's desk by it's return date (assuming I get a response).

Sometimes mail order houses don't even bother to reply when they see my address. Recently the owner of a computer paper company wrote to explain that they had discontinued service because of lack of volume and "the amazing ability (of) the U.S. Post Office to destroy packages no matter how well we cushion them." The Trust Territory falls under the domestic service of the U.S. Postal System and is in the same zone as Hawaii.

Not all mail order companies have given up on the islands. In December 1983, I ordered a case of computer paper and a dozen ribbons from a firm in the Midwest. At the same time, I ordered 20 diskettes and a head cleaner from a firm in California. My ribbons were worn, paper about gone and I had about six weeks of service from my head cleaner. Not to worry, right? I made sure to tell the firms to send via airmail.

So when did my prepaid orders arrive? Sure, April 10, 1984. Why? Because they put surface postage on the orders and they went what we call "Ship mail". I also managed to mess up, my order. I ordered 16 hard sector diskettes and had to send them back, ordering again by mistake, quad density. So not only did all this take ten times longer than it should, but cost more, too. (This was written on quad density disks.)

The other day, I sent in an order to Radio Shack in Hawaii, based on their quotations, authorizing them to use my VISA card. They apologetically wrote back that they no longer accept credit card orders by mail. From the first letter of inquiry on prices, to final delivery (assuming they have not run out of the parts when they get my money order) will be at least six weeks.

Climate and power conditions

Climatic conditions for computing in Micronesia are less than optimum to understate the case. Temperatures range from 75-85 degrees F. year round and so does the humidity, which includes salty breezes. My office is about 200 feet from the ocean. Our new administration building uses natural ventilation and ceiling fans which is just fine for conservation, but just awful for computers, because they stir up

the dust and recirculate it. The roads are largely unpaved; it is either muddy or dusty.

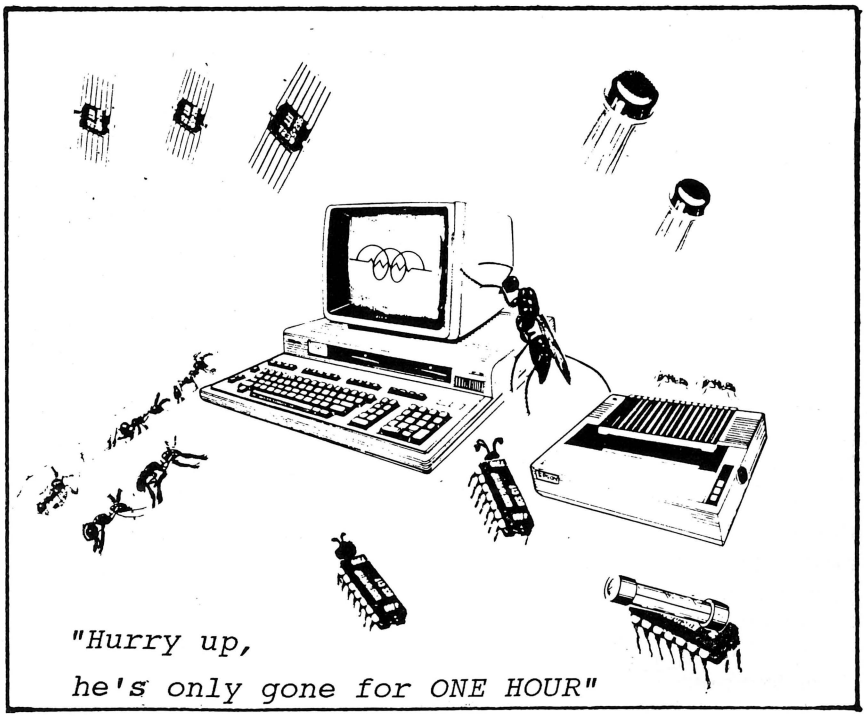
We also have a lot of bugs, and I don't mean the computer kind. Aside from the dust and salt, we have mosquitos, moths, and "copra" bugs as our primary UFO's; then there are the land creatures like cockroaches, silverfish, and ants.

Finally, there is the problem of power, or the lack of it. Island power is from diesel mains. Fortunately, U.S. standards are used, so voltage conversion is not a problem; however, there are others. For example, a while back, a line broke during a mild squall. There was a lot of "snap, crackle, and pop" outside the building, and some Xerox Memorywriters and equipment in our print shop got zapped, and while we have one of the best power plants in the Trust Territory, there are often unannounced power outages (often in mid-sentence).

How do I cope with of all this? Well, for salt, dust, UFO's and the like, my system stores in a cabinet with the keyboard on the bottom, the cup on shelf two, and monitor on shelf three. There are openings on the back and sides of the cup enclosure for cables, on/off switch, and ventilation. These are covered with plastic window screen, and the front is covered by a small, hinged door, with large openings themselves covered by air conditioner filter material (the sponge rubber type, not fiber). When not in use, the whole enclosure is covered by a fitted plastic cover. Hopefully, this discourages suicide attacks by UFO's.

If leaving the system for any length of time (more than five days), I put a lot of insecticide around the cabinet in order to discourage ants from mistaking my cup for the Swiss Cheese Room in Adventure. I would not recommend using roach traps, because unlike insecticide, they attract the enemy.

For power problems, I currently (no pun intended) have a Clipper surge/spike suppressor, and I am working on my own UPS, consisting of a battery charger, RV battery, and inverter. This will allow me to be independent of the power system during use, and will cost about the same or less than those commercial UPS units that only let you shut the system down, then twiddle your thumbs like everyone else.



Personal feelings — Before I purchased my Epson, I had used old manuals like Royal, and Hermes, then graduated to a Selectric, then a Xerox Memorywriter. After I made the plunge and started using my Epson, people looked at me kind of funny. But, no mind. Like other users, I now cannot see how I got along without one.

The hardware (including an MX-80/FT) has performed flawlessly despite things like climate and power. In fact I feel that Epson should designate my system as a field test unit in a hazardous area. My only software problems are those encountered by other users, like losing your index, and that should be corrected soon.

The philosophy behind Valdocs that the user never has to know more about the system than what is in the users guide, is fine, but probably understated. Valdocs is easily mastered, and unless you have not the least bit of curiosity, eventually leads to trying to learn more about TPM, CPM, MBASIC, etc. It is more of a beginning than an end. If there are any real problems, they are more of logistics than anything else. I cannot pick up the phone and dial the Rising Star hotline, or Epson America. One recent reply suggested that I visit a B. Dalton bookstore for a volume on assembly language programming. Right! Unfortunately, there was no airline ticket included with the letter. Some other time.

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Disk of the Month ▼▼▼

How To Order— see page 31

This Volume contains libraries arranged in alphabetical groupings, based upon the name of the program. No description of each program will be given; however, most are games and will require the user to provide his/her own effort to decipher its workings. **NOTE:** You will require public domain programs: LU3.COM and NSWP205.COM, to unlibrary and unsqueeze the programs on this disk. These 2 programs are on all the EpsonNet RBBS's and are offered on EC-2 (July EpsonConnection).

EC-3

3.1 **BASIC-A.LBR**
- ARITH.BAS
- ALFABET2.BAS
- ANNU1.BQS
- ARBCOMP.BQS
- ALFABET1.BAS
- ACCTPAY.BQS
- ANNUDEF.BQS
- ASSIGN.BQS

3.2 **BASIC-B.LBR**
- BIO.BAS
- BULLSEYE.BAS
- BOUNCE.BAS
- BIOLIST.BAS
- BIOCAL.BAS
- BOMBER.BAS
- BUZZWD.BAS
- BAYES.BQS
- BLACKSH.BQS
- BONDVAL.BQS
- BUSBUD.BQS
- BLKJK.BAS
- BIORYTHM.BAS
- BUG.BAS
- BIOPRNT.BAS
- BLKJAC.BAS
- BULCOW.BAS
- BUNNY.BAS
- BETAALPH.BQS
- BONDVAL.BQS
- BREAKEVN.BQS

3.3 **BASIC-C.LBR**
- CHECKERS.BAS
- CRAPS.BAS
- COMPARE.BAS
- CUBE.BAS
- CAP1.BQS
- CHECKBK1.BQS
- CONPROF.BQS
- CHECK1.BAS
- CHOMP.BAS
- CODE.BAS
- CHASE.BAS
- CHASE2.BAS
- CHECK2.BQS
- COMPBAL.BQS
- CVP.BQS

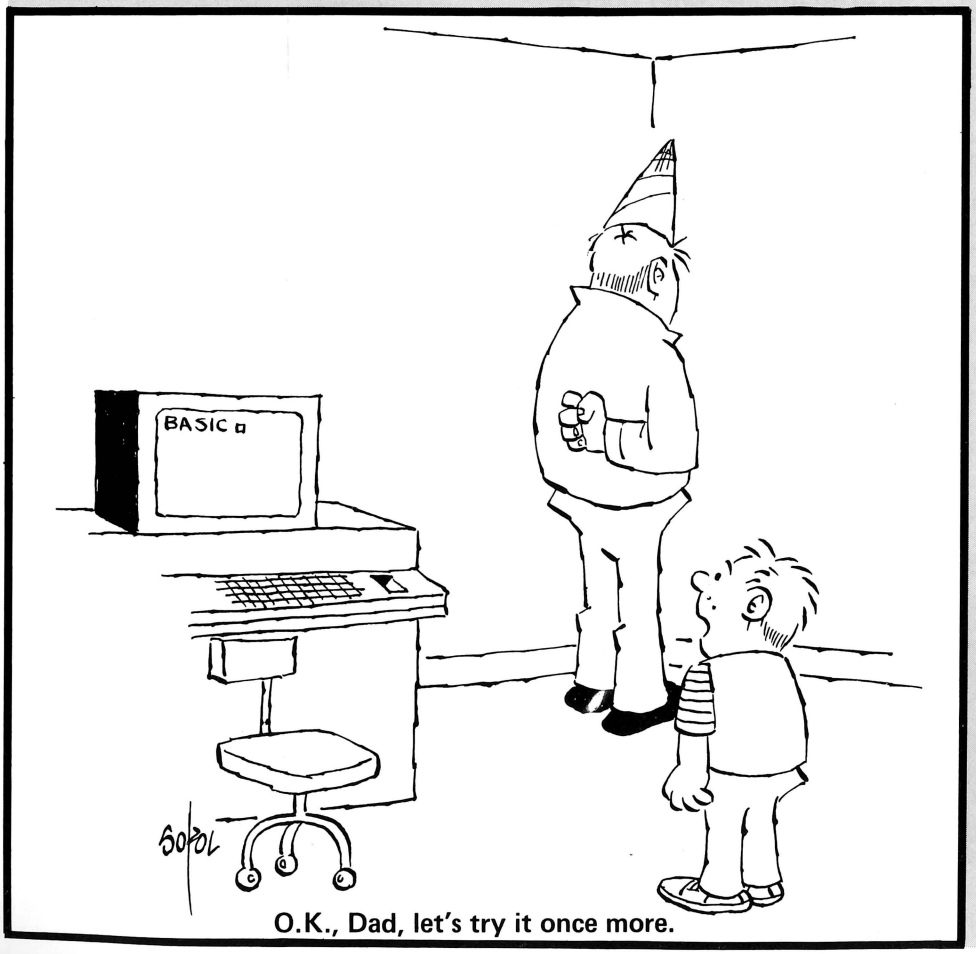
3.4 **BASIC-D.LBR**
- DTOCCATA.BAS
- DIAMND.BAS
- DEFUSE.BAS
- DATE.BQS
- DAYYEAR.BQS
- DEPRDB.BQS
- DEPRSF.BQS
- DILANANAL.BQS
- DRAGON.BAS
- DRINKS.BAS
- DRAW.BAS
- DATEVAL.BQS
- DEPLETE.BQS
- DEPRDDB.BQS
- DEPRSY.BQS
- DISCBAL.BQS

3.5 **BASIC-E.LBR**
- ENVELOPE.BQS
- EPSEST.BQS
- EFFECT.BQS
- EOQ.BQS
- EXPVAL.BQS

3.6 **BASIC-F.LBR**
- FLASH.BAS
- FISHING.BAS
- FRACT.BAS
- FINRAT.BQS
- FQEOWSH.BQS
- FVAL.BQS
- FONENAME.BAS
- FOOTBL.BAS
- FQEOQ.BQS
- FQEOQPB.BQS
- FUPRINF.BQS

3.7 **BASIC-G.LBR**
- GALAXY.BAS
- GRAFLINK.DOC
- GUNNER.BAS
- GRAFLINK.BAS
- GRAFIT.BAS

3.8 **BASIC-H.LBR**
- HAUNT2.BAS
- HOCKEY.BAS
- HELLO.BAS
- HANGMAN.BAS
- HORSES.BAS ▲▲▲



O.K., Dad, let's try it once more.

QX-10 Products

MicroRAM

Microram Version 2.0 is now available and offers a 162K RAM disk and a key redefinition utility called **QXkeys**. Both programs are only usable with CP/M. The RAM disk option allows the extra memory to be treated like a floppy disk; thus enabling a program such as WordStar to be loaded directly into this area. Files will stay on the Ram disk until the unit is powered off. The main advantage of such a setup is speed. MBasic will load in less than a second.

The **QXkeys** program allows any key to be programmed to print a string of up to 128 characters. Keys may be defined through an initialization file, from within a program, or interactively from the keyboard. The price for this package is $35, with on-line documentation ready for printing. Contact: MicroNova, RR.£ 5, Canning, Nova Scotia, Canada B0P 1H0

FONTSTAR

Is designed to work with WordStar and an Epson RX, MX, or FX printer. It allows up to 20 high resolution fonts to be incorporated into a printed document. A companion program allows the user to define his own fonts or modify existing ones. List price is $60. Contact: MicroNova, RR£5, Canning, Nova Scotia, Canada BOP 1HO

Loan Master

This comprehensive loan analysis program produces either periodic or annual amortization schedules. The annual schedule set is useful for income tax purposes, as it lists the total interest paid for each year during the loan. Loan payments can be based on months, years, or days. You may list all input ,as well as, calculated parameters for each loan. Output may be selectively directed to display, printer, or disk. Complete error checking is included. Suggested retail price is $29.95. Contact: Generic Software, P.O. Box 790, Marquette, MI 49855

OMNI-READER

The Omni-Reader is a revolutionary new product . The unit consists of an optical character recognition unit that enables personal computers to automatically read printed or typed text without actually having to type the text into the computer. Scheduled for release in late summer or early fall, it will retail for around $500. Contact: Oberon International, 5525 MacArthur Blvd., Suite 630, LB 48, Irving, TX 75062

DataPlot Plus

This is a business graphics software program which allows previously collected data from spreadsheets, databases, etc. to be incorporated into the DataPlot Plus program for chart or graph preparation. The program is reported to be an entry level graphics program, which is both fast and user friendly. Do not confuse this English released program with one of the same title currently available in the U.S. The suggested retail price is 195 pounds. Contact: Grafox Ltd, 35 Clements, Oxford, England OX4 1AB

JOSEF

A new programming language for education which combines the structure of Pascal with the spirit of Turtle Logo. Released by Kobetek Systems , Josef contains standard programming features such as variables, I/O statements, and functions with parameters and recursion. This new language differs in that it is screen oriented. The suggested price is $45. Contact: Kobetek Systems, 1113 Commercial Str., New Minas, Nova Scotia, Canada B4N 3E6

RSIBASIC

RSIBASIC is now available. Fully supporting the QX-10 and Valdocs, the package includes a 300 page manual, a demo disk, and two games that demonstrate the graphics capabilities of the language. Features include the support of over 170 keywords, Turtle graphics commands, x-y graphics commands, and color support. The cost of the package is $100. RSI also has their new **TPM-II USER GUIDES** available for $25, and the **PROGRAMMER'S GUIDE TO VALDOCS** available for $25 each. Contact: Rising Star Industries, 24050 Madison Street, Suite 113, Torrence, CA 90505

RAM DISK FOR THE QX-10

By SemiDisk; this is an internal card that will have up to 512K per board. Currently interfaced with CP/M the company is working with Epson and Rising Star for compatibility with TPM. Pricing is not yet available; however, the board is expected to be released within the next month. Contact: SemiDisk, P.O.Box G.G., Beaverton, OR 97075.

MUSIC MANIA VERSION 2.0

Music Mania is a menu driven, BASIC program for the QX-10. The program has several operating modes which are displayed in the opening menu:

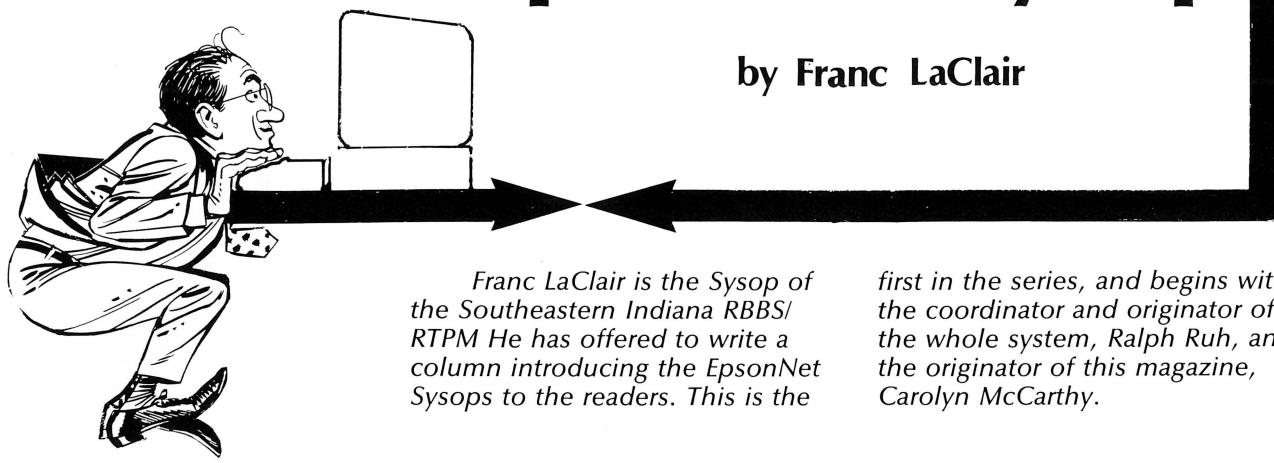
Progammable Organ Mode
Play-Back Mode
Keyboard Mode
Hear Scales
Help on This System
Detailed Directory of This Disk
End of This Program

When selecting one of the two keyboard input modes (1 or 3), one octive of a piano keyboard is graphically displayed. You are then prompted to type in a Note, Rest, or change octive to High or Low. You then may select the duration of the Note or Rest, whether it be a Whole, Quarter, Half, Sixteenth, Etc.. When you finish your composition it is stored and you may play it back at any time.

This program will produce single note melodies, no chords. This program also includes several pre-programmed tunes for your listening pleasure. *Paul K. Castro has done a nice job on this program. Retail price: $30.00.* Contact: Castro Software, 12003 Laneview Dr., Houston, TX, 77070. Dealer Inquiries Invited.

Meet Your EpsonNet Sysops

by Franc LaClair



Franc LaClair is the Sysop of the Southeastern Indiana RBBS/ RTPM He has offered to write a column introducing the EpsonNet Sysops to the readers. This is the first in the series, and begins with the coordinator and originator of the whole system, Ralph Ruh, and the originator of this magazine, Carolyn McCarthy.

Ralph

Regular readers of the Epson Connection are familiar with Ralph Ruh's knowledge and expertise with the Epson QX-10 through his monthly contributions, software reviews and technical tips. Ralph is a self described "old hacker", and Advanced Class amateur radio operator. He is responsible for the design and development of the international EpsonNet Remote Bulletin Board System RBBS since purchasing his system in early 1983. Ralph is employed as Director of National Accounts for a large mid-western trucking firm. He was interested in upgrading from a couple of early home-built computers which included an increasingly isolated Sorcerer. The Epson attracted him with the excellent modular designed hardware, large RAM capacity, and potential for expansion. Increasing support from third party vendors in hardware and software have enhanced Ralph's utilization of his system in work related word processing tasks, and client data management with DBase II. He is currently adding MT Pascal and "C" to his list of programming languages which include MBasic, DBase II, and the current versions of Telos-Forth.

Ralph's interest in electronics brought him to computers about 10 years ago, and has developed into a nearly full-time avocation as the EpsonNet Coordinator. With 30 RBBS SYSOP's under his wing, Ralph is busy with RBBS updates, technical assistance, and acquisition of "the best quality PD software" for EpsonNet users. Although coordination of the system and his assistance to Carolyn McCarthy and the EpsonConnection efforts are time consuming, Ralph looks forward to providing expanded services and technical support/referral to all of the local RBBS systems. Systems are planned for Canada, England, and France. One has recently been placed in Venezuela. Ralph recently "went private" with his RBBS system (open to EpsonNet SYSOP's only) to provide greater coordination for SYSOP's.

Multitasking and multi-user systems, and enhanced integration of the VALDOCS software are the next major steps in Epson developments for business use, especially for the beginning or novice computer user, according to Ralph. He is "not a color fan" primarily due to the projected expense of that feature. His forte and interest is in the area of business applications software, and an occasional round of "challenging" computer chess.

Ralph is a dedicated Epson enthusiast and the cornerstone in the development of the RBBS/ RTPM system and its continued support. **Thanks Ralph!**

Carolyn

One of the most delightful and interesting people involved in the EpsonNet Network is Carolyn McCarthy. Carolyn is the founder of the newly organized EpsonNet International Users Group, Publisher/Editor of the EpsonConnection, and SYSOP of the Epson-Connection RBBS/RTPM in Detroit, Michigan.

A relative newcomer to computing (as are MANY of us!), Carolyn came to the Epson "fold" via a long time interest in computing, with aspirations of owning a computer store as an alternative to her career as Director of a community mental health center. Squeezed in among duties as wife and mother, Carolyn "took a year off" from her job and earned a computer technician certificate from Control Data and followed it up with technical/dealer training from the local Epson Distributor. With visions of retail sales dancing on the CRT's of the 4 other computer systems she and her husband own (Zenith 89 and 100, IMSAI, and TI 99/4A), Carolyn did an abrupt "ctrl shift" and did not

open a dealership. She was concerned about not having the amount of time needed to start a retail business. Alternatively, Carolyn combined business and avocation in launching the Epson Connection. She teamed up with her cousin Maureen, who is experienced in the publishing field, and who has been responsible for layout, keylining, and advertising.

Carolyn has broken ground for Epson users in many ways since establishing the newsletter. She has formed strong, positive relationships with people involved with the Epson products around the world. She works hard to keep users informed of new developments and products as they are available. With encouragement and support from Ralph Ruh and Ron Spatafora, Carolyn has expanded the newsletter to a magazine format, strengthened the network of EpsonNet users, and formed the FIRST international users group.

What's next? In terms of the EpsonConnection, Carolyn sees the focus as continuing to provide tips to novices and experts on the system, and to widen the sharing of user applications, internationally, to increase awareness of the potential applications of our Epson products.

According to Carolyn, the next step for Epson to take is to pay attention to networking, and increase the versatility for business uses. She is especially excited about the translations of Valdocs into Spanish, French, and German that is in process, which will increase the number of people using the QX-10, and expand the uses of the system. Carolyn sees the educational market as virtually untapped and sees the recent announcement by Drew University (supplying QX-10's to incoming freshman) as a step in the right direction.

Carolyn is a warm, open person, sometimes available to chat on the RBBS, and welcomes the opportunity to meet other Epson users. She encourages visiting SYSOPS to take a turn operating the EpsonConnection board when in Detroit.

If you have not yet become acquainted with Carolyn give yourself a treat and ring her up on the EpsonConnection RBBS/RTPM at (313) 823-1425.

▲ ▲ ▲

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Software Review

Reading Professor

by Judy A. Lewis

SPEC SPOT

Program Name: Reading Professor
Type: Educational
Computer: Epson QX-10
Operating System: CP/M 2.2, version A2.21
Price: $99.95
Ease of Use: Friendly, easy to use even without reading the manual.
Performance: Very good, only minor annoyances
Documentation: User friendly, 30 pages
Users: Secondary school students and adults
Summary: Well suited for the stated purpose of increasing your reading speed and comprehension
Manufacturer:
Acorn Publishing Company
1335 West 134th Street
Gardena, CA 90247

The Reading Professor is a good tutorial for increasing your normal reading rate. There is a difference between reading or comprehension and skimming for highlights. The bulk of the material in the Reading Professor is aimed toward increasing your normal reading rate. The techniques covered are basic and easily transferrable to everyday reading. The reading passages chosen are interesting and enjoyable . The material is, as stated, secondary in nature except for a few of the passages which are ok for upper elementary.

The Reading Professor consists of two parts — the Lessons and the Exercises. The lessons consist of ten parts which take 15 to 20 minutes each to complete. It is by no means necessary to do all of these at one sitting. The excellent screen resolution of the Epson CRT is especially important for this intensive amount of screen reading. The Reading Professor steps you thru the lessons in sequence. If you turn the machine off and start another day, your progress is recorded and you begin where you stopped.

The lessons can be repeated within the same profile, but are not recorded over your original scores. You must begin a new profile with a new name (or erase the old one) if you wish to see a new lesson profile. The interesting part of the profile for me was the graph. While my reading speed increased steadily as I progressed through the lessons, my comprehension showed an inverted bell curve. As I applied the increased speed techniques, comprehension fell off and then increased as I continued to increase my speed. My overall increase was 30% in speed and 10% in comprehension. This is quite a remarkable increase for such a small investment of time. Even further recommendation comes from the fact that the skills have been retained and I can already use them in daily reading.

When using the exercises, you can choose from 50 different passages and seven different types of exercises. You have the option to choose eight variables for the exercises which include character size, line width and reading speed, among others. In most exercises, I found the double size characters distracting. The narrow line width allows me to practice on newspaper column width. The variable which allows you to turn the background off means that you can only see the highlighted words or phrases. This quickly shows if you are reading faster or slower than the rate you have chosen because you cannot look back or ahead.

The ladders exercise was very difficult for me to use and I still have not gotten the hang of it. The scales were beneficial in establishing a rhythm to my reading. The depths exercise did not seem at all useful until I stayed with it through about the fourth passage, then I began to notice some improvement in peripheral vision.

Annoyances: About three times while using the Reading Professor, we have had a message that says UNEXPECTED INTERRUPT. The only way to recover seems to be to re-boot. I have tried to make this occur by pressing any number of keys and have no clues. This has always occurred during a timed reading. In the phrases exercise, there are not enough different phrases, I quickly memorized the correct answer. In the stretching exercise you are given 5 letters and then must type them into the computer. Because of the slow fade of the CRT, I almost always scored high on this exercise. When you begin the lessons over again to generate a new profile, the same sequence of reading passages are used, and quite frankly I could remember the answers to the comprehension questions.

Comments: In regard to the type of questions used, they do not require thought or conclusions on the part of the reader, only the

retention of facts. I noticed myself that, just through logical deduction I could answer some of the questions. Also, my more positive feedback could be given by directly telling you if your answer is correct. As it is you must watch the number correct to see if it changes to know if you have answered the question correctly.

Conclusion: For someone who is genuinely interested in increasing their normal reading speed as opposed to speed reading, I feel the Reading Professor can be very useful. The Appendix A has a good passage regarding the rationale of speed reading and I recommend reading it. I will continue to use the exercises and feel I will continue to increase my reading speed and comprehension.

▲ ▲ ▲

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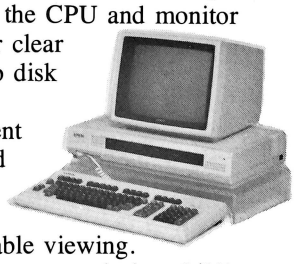

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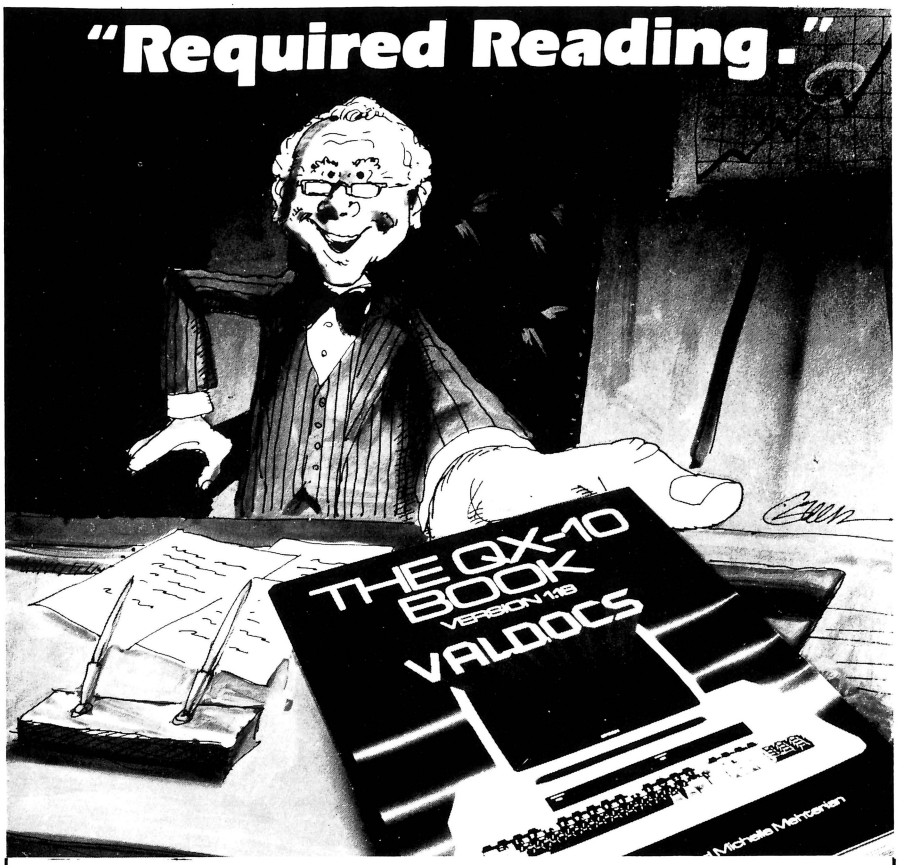

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The QX-10 Book Series II will not be available until the release of Valdocs 2.0 (est. October 1984).
QX-10 is a trademark of Epson America. VALDOCS is a trademark of Rising Star Industries.

QX-PC

by Jim Heil

SPEC SPOT

Product: Titan QX-PC co-processor
Type: internal board with Intel 8088 chip
Computer: QX-10
Specifications: shipped with 192K Ram, EU expandable to 256K. 2K Rom (for BIOS). Clock speed 5.0 Mhz.
Ease of use: Install in any option slot 1-4. If one can use Valdocs, the QX-PC should be no problem
Preformance: Good
Documentation: adequate
Summary: The QX-PC combines the ease of use from Valdocs, the CP/M operating system, and the compatibility with MSDOS
Price: $795.00 sugg. retail
Planned Upgrades: Hard disk interface, BASIC language, modem interface, 512K RAM, 8087 math processor
Manufacturer:
Titan Technologies
310 West Ann St.
Ann Arbor, MI 48104
(313) 662-8542
I0000-30-

If you are like the majority of EpsonConnection readers, you are probably interested in hearing about the latest upgrades for the QX-10, especially from the perspective of a so-called end user, which is the term computerdom has designed to call us unsuspecting folk who actually use the software and hardware it produces.

First the facts. QX-PC is the acronym used to describe a QX-10 that has been modified by the addition of a plug-in card so that it can run a large amount of the IBM PC compatible software. The modification is simple — anyone familiar with the workings of a Philip's screwdriver and the making of backup disk copies can handle the task (see the March/April edition of the EpsonConnection for an in depth preview of the QX-PC).

The hardest part of the project involves finding the card, produced by Titan Technologies. Demand for the card has been greater than supply. Coupled with a shortage of RAM chips, the problem has led to regional shortages that hopefully will be cleared up by the time you read this.

What do you get with the package?

The card, which has been described as a computer in its own right, without a keyboard, monitor, disk drives, and I/O ports. It does include MSDOS (version 2.11) on a disk, a Pre-Boot disk containing the program that enables the card, a brief manual from Titan explaining how to set the card up, and a cryptic manual from Microsoft explaining MSDOS.

Installation is easy, in the VALDOCS tradition. The card fits into any of the five expansion slots located under the cover of the QX-10 on the left side except slot five (because of the thickness of the card). Access to the slots is gained by unscrewing the two screws on the back of the cover and lifting the cover toward the front of the machine. Suffice to say that you should have the power off and the computer disconnected from the power supply when you do this. Install the card, pop the cover back on and you are ready for the software procedures.

A quick, but related, digression at this point is in order to explain in one broad sweep how the card works through the QX-10 (technicians bear with me). Skip the next two paragraphs, if you're not interested in peeking under the hood.

As most of you know, the QX-10 uses the Z80 chip and is capable of running CP/M, TPM, and other eight-bit operating systems. The IBM PC uses the 8088 chip and uses a 16-bit operating system, in our case MSDOS. Once you have installed the QX-PC card, it just sits there when you are working with CP/M or TPM/VALDOCS, doing nothing (a state called "transparent" by

the industry). It is only accessed when you run a program contained on the pre-boot disk called QXPC.COM that control is passed to the QXPC card. The Z80 chip, and related devices, act as a dispatcher for the 8088 chip on the card, i.e., the card utilizes the existing Z80 processor to write something to a disk, read what's being typed on the keyboard, display data on the monitor, etc. In a nutshell, when you are using the card the Z80 doesn't lay idle; it is busy in the background acting as a "slave" to the 8088, getting information from the keyboard, putting data on disk, etc.

Why all the fuss over what chip does what? Granted it is an esoteric point, but the information helps to explain why you first need to load the Z80 operating system CP/M, before you can run QXPC.COM, and then load MSDOS. All this is loaded before you get to load your application program.

Back to the software procedure. After you have made a working copy of the pre boot disk, you then copy your version of CP/M onto that working copy, along with the two programs on the pre boot disk. You can use the CP/M version that came with your QX-10; however,it is recommended that you use the newest version called CP/M B. You then place this pre boot disk in drive A, hit the reset button, and QXPC.COM does the rest, prompting you after it is finished to place the MSDOS disk in drive A and hit any key. After you have done that, MSDOS prompts you with the correct date and time and asks if you would like to make any changes. Hitting the return key twice finally gets you to MSDOS and you are ready to run your application program, approximately 20 seconds after you started.

Enough of the facts for now. Let's get into opinions, which are more fun.

What will the QXPC do for you?

For starters, it will enable you to run probably the slickest (definitely the hottest) commercial software package in the country, Lotus 1-2-3. It will give you access to the large base of software written for the IBM PC, in addition to the software base you enjoy now with CP/M. Some of this IBM PC software will work with your card, others won't. For now, personal experience with Wordstar (v.3.30, which this article is written with) and Lotus 1-2-3 indicates that they both work as promised.

A parting comment — The best possible reason to upgrade your QX-10 with the QXPC board is plain. How many of your friends that have IBM PC's can boast of having the best of all worlds?; the ease of use from Valdocs, a CP/M system, and compatibility with MSDOS.

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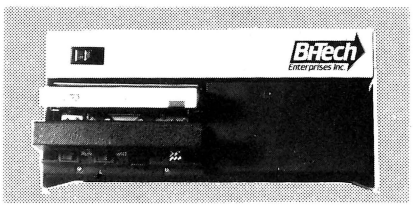

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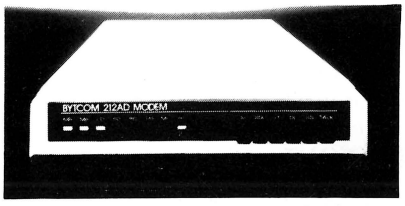

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RSIBASIC the Power BASIC

by Dennis Dreyer

I have been asked by Carolyn McCarthy to share with you some information on RSI's new Basic that has been designed with you in mind, not the programmer. To grasp a general understanding of BASIC, I recommend reading a Tutorial manual about BASIC programming.

We are going to cover the Commands that are particularly RSIBASIC items. We will cover Graphic Commands, Screen Commands and Cursor Commands, as well as some other Misc Commands that are RSI creations.

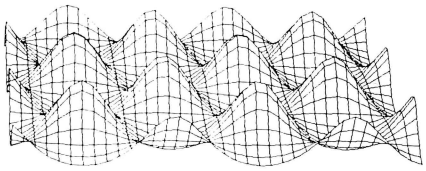
Well let's get the ball rolling with some information for those that must know what-is-what. RSIBASIC runs with the operating system TPM-III. Graphic Drivers, and Image files are loaded with INITIAL.INI at boot-up time. After the boot-up, the A prompt will come up and you will type RSIBASIC. The program will load and our LOGO will come up, with the message age 83,186 Avail and the prompt "READY"— Did you notice something in the last sentence?... Over 83K TPA available for you to write your programs. You know how much TPA you have in certain other Basics. That is enough technical information. Lets get to the heart of the matter.

You have a line editor that uses the arrow keys, the left and right delete keys, the UNDO key, the INSERT key the DEC TAB key (which can be used as a 'line feed'), and the"STORE"key to store the Edited line. Notice the usage of keys that you are already familiar with. There are 18 other specialized edit controls if you desire to use them. You get into EDIT by the command EDIT Line # or "EDIT" for the current line. This is a very easy to use Editor.

GRAPHIC COMMANDS

TurtleGraphics & QX-10 Graphics

DRAW — Controls the 7220 Graphic Chip D-op codes and relays the parameters that you desire, such as size of rectangle, radius, etc.
CIRCLE — Draws circles and arcs.
CLS — Clears the screens.
CMODE — Sets color display modes on Color Qx's.
COLOR — Sets the colors of the display screens.
CONNECT — Draws lines between two sets of points on graphic screen.
DISPLAY — Selects screens 1 or 2.
DMODE — Sets the graphic display screen.
DRAW — Draws a line a specified length.
DRAWTO — Draws a line from the Cursor to a specified screen location.



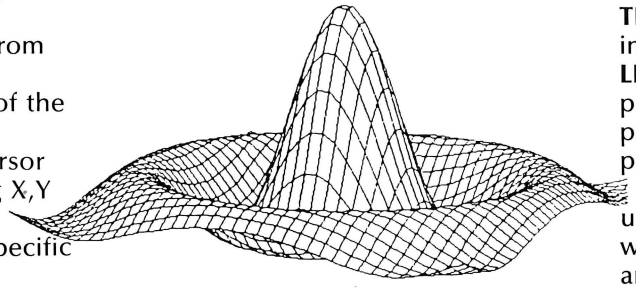
FILL — Paints/Fills a specified area inside an enclosed area with a selected pattern.
FONT — Select type of font for display on graphic screens; you have up to 16 styles.
GET@ — Stores a section of the Graphic Screens in one of two temporary storage areas.
GFONT — Selects the display font used by the graphic character set.
MOVE — Moves cursor in the current direction.
MOVETO — Positions cursor on current graphic screen using the X,Y positioning.
SET — Lights a pixel at cursor position.
PRESET — Turns off pixel at cursor position.
PUT@ — Displays one of two temporary screen storage areas on a graphics screen.
RECTANGLE — Draws rectangles on graphic screens.
SCREEN — Directs graphics and console output to one of three display screens.
SCRN READ — Reads data from disk file into predefined area on graphic screen. *Imagine the possibilities of this and the next command.*
SCRN WRITE — Saves rectangular block from a graphic screen to a disk file.
SPLIT — Windows the bottom portion of screens 1 or 2 with screen 3. *Have any ideas for this? Hmmmmm!*
TURN — Adds angle to turn of current direction.
TURNTO — Sets the current direction used by the MOVE and DRAW commands.
PRINT — Prints variable-sized characters on a graphics screen.

Well that is a lot of graphic commands; in addition they can be used in conjunction with other commands, so you have a large variety of possibilities. Do your own windows? Paint a portrait? The possibilities are endless.

MISC COMMANDS

BYE — Closes all files and returns you to TPM.
COPY — Copies blocks of program lines.
CURSOR — Turns cursor on or off.
DATE$ — Gets the date from the QX-10 clock.
DIR — Same as TPM Dir command.
ERASE — Same as Era command in

TPM.
FIND — Locates text passages in BASIC programs.
INP — Returns value read from specified port.
INTERRUPT — Sets testing of the kybd Ctrl keys.
LOCATE — Positions the cursor on the current screen using X,Y positions.
LOOKUP —Checks that a specific file is on the disk.
LVAR — Lists program variables to the screen, file or unit number.
OPTION — Sets the default parameters for the I/O devices and files.
POINT — Tells color or if pixel on and value of same.
PRECISION — Sets the number of digits of precision to be printed.
PRIVACY — Prevents access to the program without a password.
PROG — Tells you how much program space is left in memory.
PROTECT —Provides read/write file protection.
RENAME — Same as REN in TPM.



RENUM —Re-numbers program lines.
REPLACE — Replaces specified program text with new text.
RESAVE — Replaces the disk copy of a file with one in memory.
RESET — Updates the directory before removing the disk from drive.
SETHOME — Selects the screen home position.
SOUND — Outputs a tone with Frequency, Duration & Interval.
TIME — Returns the number of seconds since midnight for the current date.
TIME$ — Gets time from QX-10 clock.
TITLE$ — Holds the title printed in a program listing.
LLIST — Will list a program to the printer with Date, Title, and will page break and number the pages. *Sharp, isn't it?*

I have listed some of the unique commands that you get with RSIBASIC; however, there are a least a hundred more. These included all the standard math symbols, functions, and array items as well.

I hope this information will help you if you are considering purchasing RSIBASIC. I really believe this is one hot product and it is for your QX-10, no modifying it to work. It is ready. It is in the future Operating System TPM-III. Dennis Dreyer, Product Support Director, Phone: 213-373-3154,24050 Madison St., Suite 113, Torrance, Ca 90505

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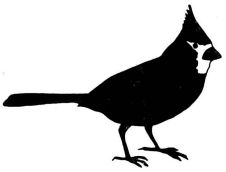

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Dis 'n Data

by Ralph G. Ruh

I would like to begin this months comments with some words of commendation to a couple of our EpsonNet Network Sysops; Allen Howell our Northwest Ohio Sysop and Stephen Hendricks our Laurel Maryland Sysop. These gentlemen performed an important service for the EpsonNet Network recently in regard to our new version of the RBBS software that we have adopted. Stephen did the code conversion on the RBBS software to adapt it for the Epson QX-10 and Allen added many fine features to the system that I am confident all of the network sysops will find very important and helpful in running their boards. Their efforts took many hours of work and I personally want to express my appreciation and the appreciation of the collective EpsonNet Sysops'. Well done guys!!!

Continuing along the same lines I would like to announce a new and exciting addition to the available public domain modem programs called QXMDM3. This is an Epson QX-10 adaptation from the popular MDM7 series written by Irv Hoff. Chris Hopkins from Fairborn, Ohio performed the programming modifications on MDM730 to make it compatable with the QX-10 in all three modes of operation; TPM, VALDOCS AND CP/M. Chris has also added the ability to change protocol and the important graphics feature that is available on the EpsonNet Network. This fine program is the culmination of over three months work on Chris' part and is a welcome addition to the fine library of available software on our network. We have decided to adopt this program as one of the two primary programs which we will recommend to users calling our systems; the other being VALDOCS MAIL of course. Look for an article in this issue from Chris concerning QXMDM3!

ADDITIONAL NOTES ON TPM:

I would like to pass on to you another tip on the usefulness of TPM. As you know CP/M-80 B has the ability to auto-boot and execute your application programs, which is a nice feature to have and does save some keystrokes when running your favorite programs. TPM also has this feature available simply by renaming your program to INITIAL.INI. The TPM operating system automatically looks for this file when it is first booted up, therefore if you want to auto-boot and execute a program just rename it to INITIAL.INI and re-set your system and watch it run!! The only caution I would offer in doing this is if your application program does another call looking for the original filename somewhere in the program, you will have to place the program name on the disk two times; first the INITIAL.INI and then the original program name. This is a good practice anyway since you will probably exit the program at some point and then want to return to it again without having to re-boot the system.

Moving on now to the next topic of discussion; which will be the program used to change telephone numbers in the MDM7 series modem programs. There are presently two such programs in the public domain; CHGLIB and M7LIB. Both are suitable for this purpose, however M7LIB is the easier of the two to work with in my opinion. Lets first deal with CHGLIB since it seems to be the one most of you have asked questions about. For the purpose of this discussion lets assume you want to make changes to the modem program MDM730.COM. First make sure you have CHGLIB and MDM730.COM on the same disk, then use the following syntax to set the program in motion.

A>CHGLIB INFILE.COM
OUTFILE.COM<RET>

In the above example the INFILE.COM would actually be the current version of MDM730.COM that you wish to alter. The OUTFILE.COM will be the new version that you will have created after you have made your changes and additions to the telephone library. The OUTFILE.COM name must differ from the INFILE.COM name for the program to function. Lets give the OUTFILE.COM a temporary name of MDM.COM. In our example the actual input at the drive prompt would be as follows:

A>CHGLIB MDM730.COM
MDM.COM<RET>

The <RET> stands for a carriage return, which you should do now. The program will search MDM730.COM for the telephone library and display it on your screen and ask you if it looks okay. Answer 'Y' to this question, unless it is totally messed up. You may now make whatever changes to the library you desire using the available commands as follows:

NOTE: * denotes a valid char A-Z

1)^C Exit to CP/M, (with file change checking).
2)D* Delete one phone number line
3)I* Insert one phone number line
4)P Prints dial library on list device
5)R Rereads source file (current changes are lost)
6)V* View one line
7)V? View entire library
8)W Write new file to disk

The user can leave INSERT mode without making any changes if a carriage return is typed with no characters entered on the command line. After you have made all the changes and additions you want just type 'W' at the command line and your

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new modem program called MDM.COM will be saved to disk. You may now erase the old MDM730.COM program and rename the new one back to MDM730.COM by the following procedure:

A>ERA MDM730.COM<RET>
A>RENAME
MDM730.COMMDM.COM<RET>

You now have a new working version of your modem program with your new telephone directory. Many of you have asked how to use alternate dialing services such as MCI and SPRINT with your modem program. This feature is available in the current versions of the MDM7 series programs as a built in feature; however it does require the ability to use the CP/M utilities, ASM.COM and DDT.COM to perform the needed work to place your special access codes within the body of the modem program. I will cover the procedure to do this in a future article if enough of you ask for it, but in the meantime you can still use the alternate dialing service directly from the command line of the modem program as follows:

COMMAND>>> CAL
1234567,,,,,12345,1-313-823-1425<RET>

In the example above the first 1234567 is the access telephone number for your alternate dialing service. The five commas are placed in the command line to provide five seconds of pause for the phone to ring and answer. The next 12345 is your private access code number followed by the telephone number you wish to dial. The 1234567 and 12345 are representations of your own numbers as examples. I hope that this information will be of help to you in using your modem programs to their fullest possible abilities.

BULLETIN BOARD SYSTEMS (BBS):

I would like to take a couple of minutes to discuss bulletin board systems and their use. First, I would like to say that the Epson QX-10 and HX-20 community probably has the largest single computer oriented base of bulletin boards available in the entire country. You have available to you the EpsonNet Network, The Classy Systems and the recent addition of the Rising Star Support Network, EpSource and the EpsonOnLine which is available to CompuServe users. I feel very sure that I can safely state that these networks have been provided with one single purpose in mind and that is to assist the Epson users in any way possible. These networks and their individual SYSOPS are in no way competing with each other as has been brought to my attention recently. Each network has its own individual personality and its own individual expertise available to the user. The typical SYSOP is generally a very dedicated and generous individual especially when you consider he has set aside a considerable amount of his personal computer time as well as his own personal time and efforts to keep it running and up to date. Many have purchased

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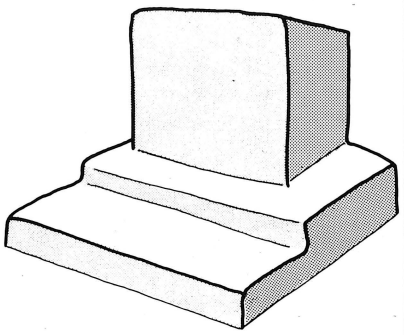

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This is no small contribution in time and money, believe me! What I am leading up to here is some of the recent activity that has been occuring on many systems around the country. We have received reports of abusive language, profanity and many attempts to destroy system integrity. This type of activity can only continue to generate frustration and anger on the part of the system operator, and has in many situations caused normally open systems to close their doors and place tight security measures on their systems and even in many instances begin placing a charge to use their systems. Recent happenings on the west coast have caused many of the large systems to place very restrictive measures on their systems in an attempt to protect themselves from legal difficulties. I believe it to be a privilege to have access to a Bulletin Board System and have always tried to appreciate its use. The systems are there for you to use and not abuse. Its the small minority that are causing the problems and I have no quick answers as to how to deal with them other than to ask them to evaluate their priorities and think twice before they act in a foolish manner.

I have certainly enjoyed my association with all of you who have contacted me either personally by phone or thru the bulletin board systems in the past and I hope that some of the information that has gone into print has been of service to you.

▲ ▲ ▲ **Viva !!!**

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What's New

Con't from page 5

selections, a pattern and color palette to choose from (27 patterns and 128 colors), full color support on screen, opaque and transparent paint modes, use of the STORE, EDIT, RETRIEVE keys.

Valdocs 2.0 was not shown in public other than the two above mentioned modules. We will be detailing more features of Valdocs 2.0 modules in September. Now, for the question everyone is asking... When will Valdocs 2.0 be ready? The official answer is that "It will be available in the fall selling season (1984)". No, there is no set day yet. Things are looking good, and the wait is just about over. One last comment of interest to our foreign users especially: there is a font program built in with menu screen ease of use to enable you to design your own fonts, not only on the screen, but to be printed out to the FX, JX, and LQ printers. Read on next month....

Now what about **1.19**?

Epson America has shipped it out to the distributors as an "Official release" from Epson CPD (Computer Products Division). This will be the "Last free upgrade". There are no new modules in 1.19, but it is designed to solve the printer problems which were encountered by some. A change in MAIL allows you to access Dow Jones without being locked up on the password, which sends the xoff signal to your computer. Use the UNDO key and reselect Talk to a Person mode. The printer menu has been changed for easier use. The 1.19 is expected in Dealer hands by the first part of August. Check with your dealer.

CR-II Margin Creep. If you are having a problem with your Comrex CR-II daisy wheel printer with a margin creep problem, call your service center to obtain a new ROM, referred to as a Valdocs compatible ROM.

LQ1500 tip. When using the LQ1500 with Valdocs, select MX100 in the SETUP menu, and don't try to download graphics characters to it.

News from Japan. The news from Japan about new Epson products in the works include a coprocessor computer with motorola 68000 and Z80 CPU's. The unit has a 10 MB hard disk and a 1MB floppy disk drive, has 1024KB RAM and 256KB Video RAM. This unit is called the KX-30 and is a high end business system costing around $12,000. Whether it will be released in the US and when is unknown.

Color monitors? Since Valdocs 2.0 works in color, speculation has been around about how soon Epson will have their color monitors available for the QX-10. This does require a new internal video board, and we can expect the expense to be high because of the resolution required to match our systems. When? I would certainly hope to have a colorful holiday season this year. Till next month.....

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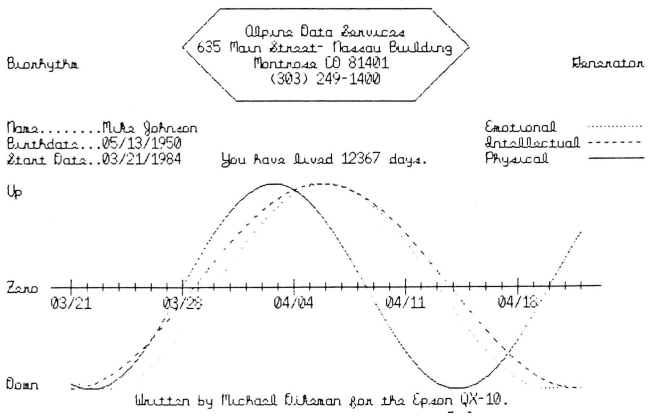

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BASIC CORNER

Con't from page 15

not have to add that on. To run a program you've saved, enter MBASIC and type:
LOAD "B:filename <cr>. BASIC will respond 'Ok' when it's finished loading your program.

Well, that's it for this month! Next month we will cover some very powerful tools. For those who can't wait, they'll be GOTO and IF-THEN-ELSE.

▲ ▲ ▲

Disk of the Month

Con't from page 18

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HX-20 Products

INTERNAL EXPANSION FOR HX-20

P&M Data Services LTD now has available internal expansion boards for the HX. Available in 48K, 96K, and 192K versions,the boards offer four modes of operation selectable by internal switches. These modes include: 1) Normal, in which one or more optional 8K ROMs may be mapped in or out; 2) ROM out, which is the preferred mode for basic programming, allowing for 48K of continous memory; 3) Machine code programming mode, in which basic is mapped out; and 4) OEM mode, allowing for development of specialized functions for the HX. Software prepared for use with the boards includes a sophisticated word processor, a cash register program, and a large spreadsheet. Prices for the 48K and 96K boards will be 191 and 301 pounds sterling, respectively. Contact: P&M Data Services Limited, 29 Wigan Centre Arcade, Wigan, Lancashire, England WN1 1JS

INTERNAL MEMORY EXPANSION

Produced by Information Management Group, this 128K internal expansion board reportedly acts like a disk. A sophisticated database/ spreadsheet program has been developed for use with the board. Contact: Information Management Group, P.O. Box 2890, Satellite Beach, FL 32937

SERIAL TO PARALLEL ADAPTER

The HX can be hooked up to any standard parallel Epson or Comrex printer with this interface which has adjustable baud rates from 300 to 9600 baud. The total price of $75 is less than the cost of a serial adapter board. Contact: Computer Professional, Inc., 305 Read Street, Portland, ME 04103.

NEW BOOKS FOR THE HX

Practical programs for the HX-20

This 240 page book contains a collection of easy-to-run routines for the HX. Applications cover topics ranging from mortages to depreciation, interest for banking and real estate, math, databases, communications, quality control, and games. Each program is described in detail, with a step-by-step analysis of each routine.

User's Guide to the Epson HX-20

This starter book covers topics ranging from using the microcassette to saving and loading programs, generating graphics, using peripherals with the HX, and the use of SkiWriter. A database program and a program to communicate with the IBM PC are inlcuded.

The suggested price of the two books listed above is $16.95 each, and are written by Leo M. Conrad and Steven M. Zimmerman and are available through the Hayden Book Company, 10 Mulholland Drive, Hasbrook Heights, NJ 07604

HO-80 DISPLAY CONTROLLER

This display controller allows for 80 character lines to be shown on a TV or video monitor. A maximum of 1920 alphanumeric characters may be displayed per screen. Software is under development for use with the controller, which sells for approximately 160 pounds. Contact: Kuma Computers, Unit 12, Horseshoe Park, Pangbourne, Berkshire, England RG8 7JW

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VALBOTS
Part 2

TP has escaped and is still searching r 2.0.
The episode continues.... Will he find 2.0?
Will he find the hidden menu? If he does, will he return? Will he encounter any bugs? How far will he be able to spread around? Will it be easy? Will his speed improve? These answers and more will be uncovered in the continuing saga of Valbots. Stay tuned next month..... Still searching.....

RSIBASIC

NOTE: Making a copy of your RSI BASIC Disk. *The procedure outlined in the manual will give you read errors using your regular Valdocs copydisk procedure. The following procedure works well: Place your RSI BASIC disk in the left drive, press reset and boot into the basic, when you see the Ready prompt, type BYE. This will put you into the TPM-III system nd type CPYD and press return. You will then be prompted how to copy the disk. When done you can type RGB at the prompt and you will be back into RSI Basic.*

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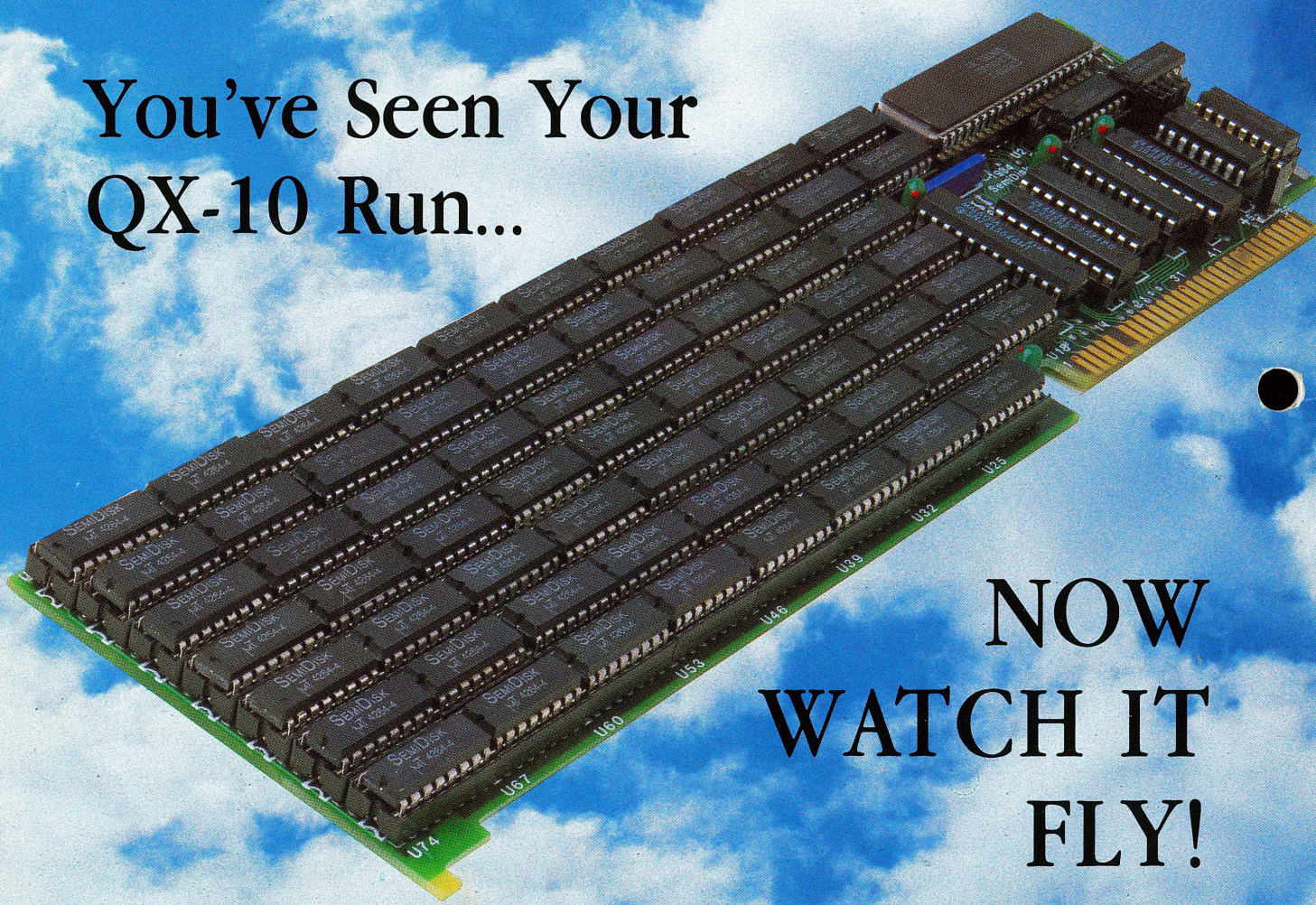

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